

Sheffield Sanitary Authority.

TELEPHONE 1951.



JOHN LITTLEJOHN,
HARVEY LITTLEJOHN,
MEDICAL OFFICER OF HEALTH.

Town Hall,

Sheffield.

Feb 21st 1898

Dear Sir

In reply to
your circular letter I
beg to inform you that
I have not yet published
my Annual Report
for 1897, but as soon
as it is out, I shall
have pleasure in sending
you a copy.

Yours Truly

John Littlejohn

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ANNUAL REPORT

ON THE

HEALTH

OF THE

CITY OF SHEFFIELD

FOR THE YEAR 1897.

JOHN ROBERTSON, M.D., B.Sc.,
Medical Officer of Health.

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City of Sheffield.

HEALTH COMMITTEE.

NOVEMBER, 1897.

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TOWN HALL,

SHEFFIELD,

July 7th. 1898.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE, CORPORATION OF SHEFFIELD.

GENTLEMEN,

I beg herewith to submit my Annual Report on the Health of the City for the year ending December 31st, 1897.

The General Death-rate was 1·9 per 1,000 of the population higher than the rate in the previous year. A similar increase in the Death-rate was experienced by a large number of towns.

I would specially draw your attention to the very high Mortality among young children from Preventable Diseases, such as Diarrhœa, Measles, Whooping Cough, Convulsions, Enteritis, &c. I believe that to a very large extent this high Mortality is due to ignorance and carelessness on the part of parents and guardians. In this respect it would appear advisable for the Sanitary Authority to use every means in their power to diffuse a knowledge of the laws of health. I believe that such work would bear fruit in the near future.

The progress made during the year in the Conversion of Privies into Water Closets, the adoption of a General Destructor Scheme, the dealing with the Insanitary Area, together with much Drainage and Paving Work, cannot but have the most far-reaching effect on the general health of the City.

While this is so, no one can doubt but that there are many large and important questions which must be dealt with in the immediate future. Perhaps the most important of these is the provision of Air Space and Drainage for the houses in certain districts. The fact that there are in Sheffield many miles of streets on the surface of which is thrown all the Slop Water from the adjacent houses, is a condition of affairs which cannot be allowed to exist.

The condition, too, of the Slaughter-houses of the City is one which demands early attention.

In conclusion, I have to report that the various officials in my department have carried out their work in an energetic and conscientious manner during the year.

I am, Gentlemen,

Your obedient Servant,

JOHN ROBERTSON.

SUMMARY OF VITAL AND MORTAL STATISTICS FOR 1897.

AREA OF CITY 19,651 Acres, divided into
NINE Registration Sub-
Districts.

POPULATION 351,848.

DENSITY 17.9 Persons per Acre.

INHABITED HOUSES Census of 1891, 66,783, with
2,596 uninhabited, and 321
building.

HOUSES CERTIFIED AS FIT FOR HUMAN
HABITATION, APRIL, 1891, TO JUNE
30th, 1897 5,085.

NUMBER OF NEW DWELLING-HOUSES
CERTIFIED AS FIT FOR OCCUPATION
DURING THE YEAR.... 1,443.

MARRIAGES 3,465.

BIRTHS 12,132; Birth-rate, 34.4.

DEATHS 7,464; Death-rate, 21.2.

INFANTILE MORTALITY 2,384 under 1 year, or 196 per
1,000 Births.

ZYMOTIC DEATH-RATE (7 PRINCIPAL
ZYMOTICS) 3.52.

ESTIMATED INCREASE OF POPULATION, 4,570, but the natural in-
crease, *i.e.*, excess of Births
over Deaths, was 4,668.

REPORT.

POPULATION.

The Registrar-General estimated the population of the City at the middle of 1897 at 351,848 persons. This estimate is based on the assumption that the same rate of increase is going on now as occurred between the 1881 and 1891 censuses.

It is, however, a well-known fact that the rate of increase of any population, and especially that in a manufacturing town, is liable to vary from year to year on account of trade and other influences.

As a correct estimate of the number of persons is the foundation figure on which all statistics are based, it is of the utmost importance it should be accurate. To enable this to be obtained it is now almost universally agreed that at least once during the intercensal period an estimate of the gross numbers of the population in each area should be made.

For the purpose of this Report the Registrar-General's estimate of 351,848 has been adopted. It is almost certain that this number is below the true number, notwithstanding the fact that residential districts have, within the past few years, been growing up immediately outside the City boundaries peopled by persons who formerly lived within the City.

The Registrar-General's estimate would appear to be at least 5,000 to 6,000 too low, and, therefore, all statistics stated as "rates per 1,000" are slightly too high.

The following are some of the reasons for thinking that the estimate is too low :—

1st. Building operations have gone on during the past two years at a rate seldom, if ever, equalled before in Sheffield. Notwithstanding this rapid increase in the number of habitable houses, it has never been more difficult to obtain a cottage house within the City to live in. Over and over again the Health Department has been made painfully aware of the difficulty experienced by persons in obtaining cottage houses near their work. Many cases of serious overcrowding have been brought to light, and in these cases the difficulty experienced in getting other houses has been very great.

2nd. The natural increase in the population—which proved to be a fairly accurate guide during the 1881-91 intercensal period—shows that the estimate of 351,848 for 1897 is about 5,000 too low.

3rd. The method of estimating the population by assuming that the birth-rate has remained constant, and, therefore, dividing the total number of children born by the mean birth-rate of the previous ten years, proved also to be very accurate during the previous intercensal period. This also indicates that the Registrar-General's figures are between 5,000 and 6,000 too low.

DISTRIBUTION OF POPULATION.

The population living within the City boundary is very unevenly distributed, as will be seen by Table II. Such a district as Upper Hallam, with a population of 0·4 persons per acre is in very marked contrast to the North district, with 227·8 persons per acre. In the following two tables, the main facts, as far as possible, are set out, showing Population, Acreage, and Density of Population in each of the nine Registration Sub-Districts within the City.

TABLE I.—*Showing the Population of each of the nine Registration Sub-Districts at the Census of 1881 and 1891, also the computed Population at the middle of 1897.*

Registration Sub-Districts.	Census Population 1881.	Census Population 1891.	Middle of 1897.
Sheffield West.....	14,957	14,105	13,447
„ North	38,982	37,499	36,462
„ South	17,919	18,411	18,725
„ Park.....	19,948	21,401	22,364
Brightside	56,719	67,083	73,805
Attercliffe.....	26,965	35,883	42,497
Nether Hallam.....	38,967	46,328	51,611
Upper Hallam.....	2,513	2,709	2,839
Ecclesall.....	67,538	80,824	90,098
Totals	284,508	324,243	351,848

TABLE II.—*Showing the Area in Acres and the number of Persons per Acre in each of the nine Registration Sub-Districts.*

Registration Sub-Districts.	Area in Acres.	Population 1897.	Persons per Acre.
Sheffield West.....	198	13,447	67·9
„ North	160	36,462	227·8
„ South	253	18,725	74·0
„ Park.....	2,417	22,364	9·2
Brightside	2,821	73,805	26·1
Attercliffe	1,297	42,497	32·7
Nether Hallam	1,538	51,611	33·5
Upper Hallam.....	6,334	2,839	0·4
Ecclesall	4,633	90,098	19·4
Totals	19,651	351,848	17·9

Too much reliance must not be placed on the accuracy of the estimates of the population for each of the sub-districts. It is well-known that building operations go on from year to year at greatly varying rates in different districts, as will be seen in the accompanying figures :—

Table showing the number of New Houses Certified by the City Surveyor as Fit for Human Habitation, from the Census of 1891 to the middle of 1897.

Year.	West.	North.	South.	Park.	Bright-side.	Atter-cliffe.	Nether Hallam.	Upper Hallam.	Ecclesall.	Totals.
1891 (part of)	...	17	14	29	126	116	55	4	175	536
1892 ...	...	22	11	32	121	155	170	7	268	786
1893 ...	...	11	15	42	165	186	198	17	194	828
1894 ...	1	3	4	36	120	123	153	16	175	631
1895 ...	...	...	13	20	85	106	141	4	155	524
1896 ...	2	18	14	68	135	288	221	7	307	1060
1897, to June 30.	1	4	4	16	107	186	239	4	159	720
	4	75	75	243	859	1160	1177	59	1433	5085

MARRIAGES.

The number of marriages recorded in Sheffield during 1897 was **3,465**. That is to say **6,930** persons, or **19** in every 1,000 were married. If we take only persons between 15 and 55 years of age, then we find that one in every **24** were married.

	Total Number of Marriages in Sheffield.		Persons Married per 1000 in Sheffield.		Persons Married per 1000 in England and Wales.	
1888	...	2885	...	17.9	...	14.4
1889	...	3073	...	18.7	...	15.0
1890	}	No Record	...	No Record.	...	15.5
1891					...	15.6
1892	...	3091	...	18.7	...	15.4
1893	...	2797	...	16.7	...	14.7
1894	...	3215	...	19.0	...	15.1
1895	...	2810	...	16.0	...	15.0
1896	...	3322	...	19.0	...	15.7
1897	...	3465	...	19.6	...	16.0
Means	18.2	...	15.2

Dr. Farr has described the marriage rate as the barometer of prosperity (present in part, but future anticipated prosperity in still greater part), just as the Funds are the barometer of credit. The rate of wages, and also the number of persons earning a wage has certainly a most intimate relationship to the rise and fall of the marriage rate.

BIRTHS.

The number of births registered in Sheffield during 1897 was larger than in any previous year on record. The actual number registered was 12,132, which is equal to a rate of 34·4 per 1,000 of the population.

This rate is slightly above the average rate of the preceding 10 years (*i.e.*, 34·1 per 1,000). It will be noted by referring to Table IV. that the birth-rate in Sheffield, as, indeed, throughout the country generally, is declining. In only six of the 33 great towns was a higher birth-rate recorded during 1897 than was recorded in Sheffield. The mean rate in these towns was 30·7 per 1,000, and varied from 22 in Halifax, 23 in Huddersfield, to 35 in Wolverhampton, Liverpool, Salford, and Gateshead. These rates are shown on Table V. In the 67 other large towns the birth-rate during 1897 was 30·1 per 1,000 of the population. In the whole of England and Wales it was 29·7 per 1,000 of the population.

It is found that the birth-rate varies greatly in the different districts of the City, and that the relative rates remain from year to year fairly uniform, as will be seen by the following figures, showing, as they do, the birth-rates in each registration district during the past ten years :—

BIRTH-RATE IN REGISTRATION SUB-DISTRICTS.

	West.	North.	South.	Park.	Brightside	Attercliffe.	Nether Hallam.	Upper Hallam.	Ecclesall.
1888	27·7	32·8	35·5	34·4	34·8	33·4	26·0	15·6	26·5
1889	37·4	34·8	32·5	38·4	37·8	35·6	28·8	19·6	28·5
1890	33·8	35·5	32·5	34·8	35·3	39·9	31·1	18·1	28·9
1891	38·7	35·9	32·9	40·5	37·2	40·2	36·9	25·4	33·7
1892	34·7	37·7	33·1	38·9	36·6	39·0	34·8	20·1	31·6
1893	37·9	37·5	33·3	38·7	35·0	38·2	34·5	26·8	30·6
1894	38·5	38·2	31·7	36·9	33·3	34·6	32·7	23·6	29·7
1895	40·5	37·9	30·8	39·3	35·9	37·9	34·8	26·4	31·0
1896	37·9	37·5	32·3	42·2	33·8	35·8	33·8	30·0	30·1
1897	38·4	38·7	30·0	37·9	34·3	36·8	36·4	27·4	30·2
Mean	36·5	36·6	32·4	38·2	35·4	37·1	32·9	23·3	30·0

TABLE III.—*Showing the Birth-Rate during the year for the whole City, and for each of the Registration Sub-Districts : also the total number of Births, Legitimate and Illegitimate, in each.*

District.	Estimated Population in the middle of 1897.	Legitimate.		Illegitimate.		Totals.	Birth-Rate per 1,000 per annum.
		Male.	Female.	Male.	Female.		
Sheffield West...	13,447	259	231	12	15	517	38·4
„ North..	36,462	661	650	55	46	1,412	38·7
„ South..	18,725	289	241	18	15	563	30·0
„ Park...	22,364	401	408	21	19	849	37·9
Brightside	73,805	1,262	1,142	71	63	2,538	34·3
Attercliffe	42,497	770	749	22	24	1,565	36·8
Nether Hallam..	51,611	929	897	28	29	1,883	36·4
Upper Hallam...	2,839	35	42	...	1	78	27·4
Ecclesall	90,098	1,292	1,334	54	47	2,727	30·2
Totals.....	351,848	5,898	5,694	281	259	12,132	34·4

ILLEGITIMACY.

The number of illegitimate births registered was 540, equal to 4·6 per cent. of the total children born. The percentages of illegitimate births varies in the different districts, and were as follows during 1897 :—

West	5·5 %	Brightside	5·5 %
North	7·7 „	Attercliffe	3·0 „
South	6·2 „	Nether Hallam	3·1 „
Park	4·9 „	Upper Hallam... ..	1·3 „
Ecclesall	3·8 %		

TABLE IV.—*Showing the Population of Sheffield, and the number of Births and Deaths in past years. The Birth and Death-rates deducible from these figures are also shown, also the Birth-rate and the Death-rate in England and Wales.*

YEAR.	SHEFFIELD.					ENGLAND.	
	POPULA- TION.	BIRTHS.		DEATHS.		Birth-rates.	Death-rates.
		Number of Births.	Birth-rate per 1,000 per annum.	Number of Deaths.	Death-rate per 1,000 per annum.		
1736	14,105						
1801	45,758						
1811	53,231						
1821	65,272						
1831	91,702						
1841	110,891						
1851	142,635	5,946	41·6	4,027	28·2	34·2	22·0
1861	186,375	7,561	40·5	4,610	24·7	34·6	21·6
1871	241,506	9,764	40·4	6,843	28·3	35·0	22·6
1872	245,023	9,973	40·6	6,445	26·3	35·6	21·3
1873	248,954	10,761	43·2	6,558	26·3	35·4	21·0
1874	253,645	10,861	42·8	7,009	27·6	36·0	22·2
1875	257,827	11,026	42·7	6,642	25·7	35·4	22·7
1876	262,080	11,205	42·7	6,568	25·1	36·3	20·9
1877	266,401	10,859	40·7	6,154	23·1	36·0	20·3
1878	270,791	10,985	40·3	7,208	26·6	35·6	21·6
1879	275,356	10,822	39·2	6,422	23·3	34·7	20·7
1880	279,800	10,723	38·3	6,410	22·9	34·2	20·5
1881	284,508	10,814	38·0	5,909	20·7	33·9	18·9
1882	289,194	10,837	35·4	6,281	21·1	33·8	19·6
1883	293,001	10,812	36·9	6,755	23·0	33·5	19·6
1884	296,856	11,272	37·9	6,832	23·0	33·6	19·7
1885	300,762	10,737	35·6	6,328	21·0	32·9	19·2
1886	304,720	10,567	34·6	6,130	20·1	32·8	19·5
1887	308,730	10,389	33·6	6,820	22·0	31·9	19·1
1888	312,793	9,863	31·5	6,611	21·1	31·2	18·1
1889	316,901	10,844	34·2	6,841	21·5	31·1	18·2
1890	321,079	10,691	33·2	8,316	25·9	30·2	19·5
1891	325,304	11,862	36·4	7,775	23·9	31·4	20·2
1892	329,585	11,846	35·2	6,840	20·7	30·5	19·0
1893	333,922	11,584	34·7	7,419	22·2	30·8	19·2
1894	338,316	11,267	33·3	6,028	17·8	29·6	16·6
1895	342,768	12,012	35·0	7,008	20·4	30·4	18·7
1896	347,278	11,853	34·1	6,732	19·3	29·7	17·1
1897	351,848	12,132	34·4	7,464	21·2	29·7	17·4

DEATHS.

During 1897 the deaths of 7,464 persons were registered. Of this number 3,452 were of females, and 4,012 of males.

In the last Table will be found the number of deaths occurring in each year since 1871, and it will be noted that in 1890 and 1891 the total deaths exceeded in number those occurring during 1897.

It must be remembered, in comparing such figures, that the population increases annually, and therefore it is necessary to state the number of deaths in every 1,000 of the population.

During 1897, 21·2 persons died in every 1,000 of the population, as compared with 19·3 in 1896, 20·4 in 1895, and 17·8 in 1894. In Table IV. will be found the mortality rates for Sheffield during the years 1871 to 1897, and it will be noted that notwithstanding the fact that the rate for 1897 was higher than that during the years immediately preceding, yet it compares favourably with the rate for most of the years there set out.

The cause of the increased mortality during 1897 is dealt with later on in this Report. It may here be stated, however, that the slight increase is due, firstly, to an increased rate of mortality from Diarrhœa; and, secondly, to a very slight increase in a number of general diseases.

It is important to remember in comparing the mortality statistics of Sheffield with those of other towns, that certain points have constantly to be kept in view. The first of these points is that the average age of persons in different towns varies, and, owing to this alone, fallacious inferences may be drawn as to the comparative healthiness of different towns.

A second important point is to remember that different diseases affect each sex in such a way that unless the mortality statistics are corrected from this source of error, it would be unwise to compare minutely the mortality statistics of different towns.

Again, it is well to remember that the middle and upper classes pay more attention to the laws of health than do the working classes, and also that the working classes are more exposed to the baneful influences of certain trade diseases and to fatal accidents. It will follow that, from these causes alone, the mortality statistics of residential towns will be lower than those in manufacturing towns.

In column 2 of Table V. will be seen the uncorrected death-rates in each of the 33 large towns of England and Wales, and it will be noted that in seven of these towns the uncorrected mortality rate was higher during 1897 than that in Sheffield, while in 25 of these towns it was at a lower rate. In column 3 will be found the corrected death-rates, *i.e.*, corrected so as to make the figures strictly comparable as regards age and sex distinction. In the fourth column will be found the comparative mortality figures for each town. This represents the corrected death-rate in each town compared with the recorded death-rate at all ages in England and Wales in 1897, taken as 1,000.

It will be seen that Sheffield stands in the position of being seventh from the unhealthy end of this list.

The relative position of Sheffield on similar lists during the preceding five years was as follows :—

Year.	Comparative Mortality Figures.			Position on List.
1892	1218	.....	9th from bottom.
1893	1294	.....	8th „
1894	1191	.....	15th „
1895	1216	.....	11th „
1896	1253	.....	8th „
1897	1352	.....	7th „

When the staple industries of Sheffield, as compared with those of many of the other towns mentioned on Table V., are taken into account, together with the natural features of these towns, there appears to be ground for hoping that Sheffield may in the future take a better place among towns than she has done in the past as regards her health statistics.

TABLE V.—*Recorded and Corrected Death-rates per 1,000 persons living in 33 Great Towns in 1897.*

Towns in the order of their Corrected Death-rates.	Recorded Death-rate, 1897.	Corrected Death-rate, 1897.	Comparative Mortality Figure.
1	2	3	4
ENGLAND AND WALES	17·43	17·43	1,000
ENGLAND AND WALES, less the 33 Towns	16·52	16·26	933
33 TOWNS	19·10	20·65	1,185
CROYDON	13·07	13·62	781
BRIGHTON... ..	15·06	15·23	874
PORTSMOUTH	16·21	16·57	951
CARDIFF	14·94	16·67	956
WEST HAM	15·66	16·89	969
SWANSEA	15·82	17·28	991
DERBY	16·03	17·68	1,014
BRISTOL	17·20	17·97	1,031
NORWICH	18·77	17·98	1,032
HALIFAX	16·48	18·35	1,053
PLYMOUTH	19·04	18·51	1,062
HUDDERSFIELD	16·40	19·07	1,094
LEICESTER	17·66	19·17	1,100
LONDON	18·19	19·38	1,112
HULL	18·56	19·50	1,119
GATESHEAD	18·28	19·63	1,126
BRADFORD	17·45	19·97	1,146
BIRKENHEAD	18·26	20·07	1,151
NOTTINGHAM	18·78	20·19	1,158
SUNDERLAND	19·70	20·67	1,186
NEWCASTLE	19·09	20·79	1,193
BLACKBURN	19·50	21·90	1,256
OLDHAM	19·18	21·97	1,260
LEEDS	19·88	22·03	1,264
BURNLEY	19·51	22·41	1,286
WOLVERHAMPTON	22·05	23·07	1,324
SHEFFIELD	21·20	23·57	1,352
BIRMINGHAM	21·59	23·86	1,369
BOLTON	21·97	24·89	1,428
MANCHESTER	23·10	26·17	1,501
LIVERPOOL	24·37	26·76	1,535
PRESTON	24·36	26·78	1,536
SALFORD	23·91	26·88	1,542

Mortality at Various Ages.

Ages.	Number of Deaths.	Death-rate per 1,000 Persons living at each age of group.
Under 1 year	2,384	231·7
1 and under 2 years	691	79·8
2 " 3 " 	232	27·4
3 " 4 " 	122	14·5
4 " 5 " 	91	10·7
Total under 5 " 	3,520	79·5
5 and under 10 " 	156	3·7
10 " 15 " 	83	2·0
15 " 20 " 	111	3·0
20 " 25 " 	154	4·6
25 " 35 " 	374	6·7
35 " 45 " 	524	12·3
45 " 55 " 	654	21·9
55 " 65 " 	748	43·1
65 " 75 " 	691	83·0
Over 75 years	449	199·2
At all ages	7,464	21·2

From the above Table it will be seen that practically 50 per cent. of the total deaths during 1897 were of children under 5 years of age. This suggests very strongly that most careful inquiry should be made into the cause of the enormous mortality among children. In Table XI. will be found not only the causes of all the deaths, but the ages and sex of persons dying from each cause. The causes of death among young children may be conveniently divided into those which are preventable and those which are not preventable. To those which are preventable, it may be roughly stated that probably at least three-fourths of the deaths under five years belong. These preventable deaths may again be sub-divided into (a) those of an infectious nature, which are mainly due to carelessness and the most utter ignorance of the means of preventing the spread of infection; and (b) those causes of death due to exposure to cold and to carelessness and ignorance in regard to the feeding of children.

It is certain that if any considerable diminution in the death-rate for the City is to be effected that the enormous mortality among healthy children under five years of age must be dealt with most energetically. It is equally certain that the main line on which such action must be taken is the better education of the people as to the way in which young children should be reared. The process must of necessity be a slow one, but it is none the less an absolute necessity.

INFANTILE DEATH-RATE.

The births of 12,132 infants were registered in the City during 1897, and the deaths of 2,384 infants under one year of age were recorded during this period. This gives an infantile mortality-rate of 197.

In previous years the rate was as follows :—

1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
179	170	195	170	167	193	157	195	171	197

In the 33 Great Towns the following infantile mortality-rates were recorded during 1897 :—

33 GREAT TOWNS	...	...	...	177	BOLTON	...	...	...	...	186
LONDON	...	...	...	159	MANCHESTER	...	...	...	...	195
WEST HAM	...	...	...	172	SALFORD	...	...	...	...	219
CROYDON	...	...	...	135	OLDHAM	...	...	...	...	183
BRIGHTON	...	...	...	144	BURNLEY	...	...	...	...	220
PORTSMOUTH	...	...	...	168	BLACKBURN	...	...	...	...	206
PLYMOUTH	...	...	...	185	PRESTON	...	...	...	...	262
BRISTOL	...	...	...	149	HUDDERSFIELD	...	...	...	...	131
CARDIFF	...	...	...	151	HALIFAX	...	...	...	...	140
SWANSEA	...	...	...	140	BRADFORD	...	...	...	...	179
WOLVERHAMPTON	...	...	...	217	LEEDS	...	...	...	...	190
BIRMINGHAM	...	...	...	214	SHEFFIELD	...	...	...	...	197*
NORWICH	...	...	...	194	HULL	...	...	...	...	181
LEICESTER	...	...	...	205	SUNDERLAND	...	...	...	...	165
NOTTINGHAM	...	...	...	206	GATESHEAD	...	...	...	...	172
DERBY	...	...	...	168	NEWCASTLE	...	...	...	...	178
BIRKENHEAD	...	...	...	164						
LIVERPOOL	...	...	...	200						

* The rate for Sheffield as recorded by the Registrar-General is 198.

Among the 100 largest towns in England and Wales 22 had infantile mortality-rates as high, or higher, than that of Sheffield, while 77 had lower rates.

The infantile mortality-rates among legitimate and illegitimate children were as follows :—

Legitimate	...	...	...	...	194 deaths per 1,000 births.
Illegitimate	...	...	...	...	231 „ „ „ „

In Table IX. are set out certain details in regard to the deaths of illegitimate children who died during 1897.

WEEKLY NUMBER OF DEATHS, SHEFFIELD, 1897.

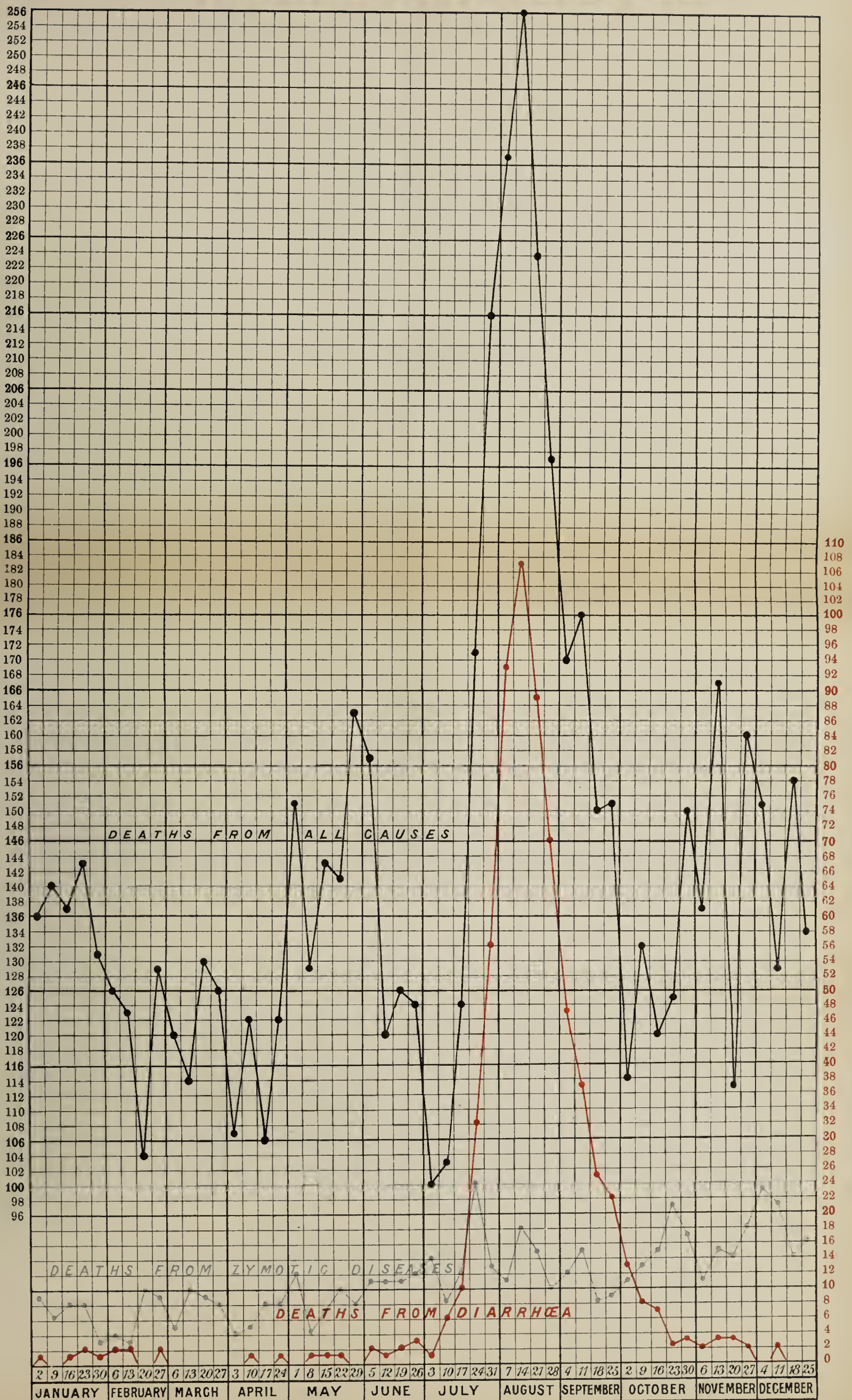


TABLE VI.—Showing the number of Deaths, at different ages, and from various causes, in each of the nine Registration Sub-Districts, for the year 1897.

DISTRICTS.	AGES AT DEATH.						CAUSES OF DEATH.					
	All Ages.	Under 1 Year.	1 and under 5 Years.	5 and under 15 Years.	15 and under 25 Years.	25 and under 60 Years.	Over 60 Years.	Zymotic Diseases (excluding Diarrhoea).	Diarrhoea.	Phthisis.	Chest Inflam- mations.	Other Causes.
Sheffield West	367	95	62	8	17	100	85	26	34	28	71	208
Do. North	1,071	325	171	29	42	317	187	80	96	101	237	557
Do. South	422	110	77	17	12	128	78	42	42	36	87	215
Do. Park	494	163	72	16	20	121	102	46	60	35	91	262
Brightside ...	1,518	541	262	47	43	373	252	144	164	82	313	815
Attercliffe ...	861	313	138	21	36	203	150	71	87	53	171	479
Nether Hallam	1,028	369	148	30	27	241	213	91	76	66	209	586
Upper Hallam	48	6	2	2	3	13	22	2	1	3	7	35
Ecclesall ...	1,655	462	204	69	65	441	414	121	103	118	302	1,011
TOTALS...	7,464	2,384	1,136	239	265	1,937	1,503	623	663	522	1,488	4,168

This Table has been compiled after distributing the Deaths which occurred in the various Public Institutions over the Sub-Districts from which they were admitted.

TABLE VII.—*Showing the Death-rate per 1,000 per annum, at various ages and from a number of causes, during the year 1897, in each of the Registration Sub-Districts.*

DISTRICTS.	AGES AT DEATH.							CAUSES OF DEATH.				
	All Ages.	Under 1 Year.	1 and under 5 Years.	5 and under 15 Years.	15 and under 25 Years.	25 and under 60 Years.	Over 60 Years.	Zymotic Diseases (excluding Diarrhoea)	Diarrhoea.	Phthisis.	Chest Inflammations.	Other Causes.
Sheffield West	27·29	241·7	47·8	2·5	6·4	19·1	122·0	1·93	2·52	2·08	5·27	15·47
Do. North	29·37	304·9	48·6	3·4	5·8	22·3	99·0	2·18	2·63	2·77	6·49	15·27
Do. South	22·53	201·1	42·6	3·9	3·2	17·5	80·4	2·24	2·24	1·92	4·64	11·48
Do. Park	22·08	249·2	33·4	3·1	4·5	13·9	88·1	2·05	2·68	1·56	4·06	11·71
Brightside	20·56	250·7	36·8	2·7	2·9	13·0	65·9	1·95	2·22	1·11	4·24	11·04
Attercliffe	20·26	251·8	33·6	2·1	4·3	12·3	68·2	1·67	2·04	1·24	4·02	11·27
Nether Hallam	19·91	244·5	29·7	2·5	2·6	12·0	79·7	1·75	1·47	1·27	4·04	11·35
Upper Hallam	16·90	72·3	7·3	3·0	5·3	11·7	149·7	0·70	0·35	1·05	2·46	12·32
Ecclesall	18·36	175·4	23·5	3·3	3·6	12·6	88·7	1·34	1·14	1·30	3·35	11·22
TOTALS...	21·21	231·7	33·5	2·9	3·8	14·1	82·5	1·77	1·88	1·48	4·22	11·84

TABLE IX.—Analysis of the Deaths which occurred during the year 1897, among Illegitimate Children under the age of five years.

DISTRICTS.	DEATHS.			AGES AT DEATH.				CAUSES OF DEATH.							CERTIFIED, NOT CERTIFIED, INQUEST.		
	TOTAL.	MALE.	FEMALE.	UNDER 1 WEEK.	BETWEEN 1 WEEK AND 1 MONTH	BETWEEN 1 MONTH AND 1 YEAR.	BETWEEN 1 YEAR AND 5 YEARS.	ZYMOTIC DISEASES.	DIARRHOEA.	CHEST INFLAMMATIONS.	MENINGITIS AND CONVULSIONS.	VIOLENCE.	INANITION.	OTHER CAUSES.	CERTIFIED.	NOT CERTIFIED.	INQUEST.
Sheffield West.	14	8	6	1	1	7	5	1	...	3	2	...	3	5	11	3	...
„ North	27	15	12	4	4	13	6	1	4	6	5	...	4	7	22	3	2
„ South	9	6	3	1	...	4	4	1	2	...	...	1	3	2	8	...	1
„ Park	20	10	10	4	1	12	3	2	5	2	3	...	1	7	18	1	1
Brightside ...	40	25	15	5	3	24	8	2	12	2	4	1	4	15	35	5	...
Attercliffe ...	16	11	5	1	2	9	4	1	1	5	2	...	2	5	16	...	...
Nether Hallam	20	13	7	3	2	12	3	1	1	3	3	...	6	6	17	2	1
Upper Hallam	1	1	...	...	...	1	...	...	...	...	1	...	...	...	1	...	...
Ecclesall ...	38	23	15	2	8	22	6	1	6	5	5	...	11	10	34	2	2
Totals ...	185	112	73	21	21	104	39	10	31	26	25	2	34	57	162	16	7

CAUSES OF DEATH.

THE GROUP OF ZYMOTIC DISEASES.

In Table XI. will be found certain details with regard to this group of diseases. It is, however, inconvenient to deal with the group as a whole, and it has been therefore divided by the Registrar-General into

- A Principal Zymotics.
- B Minor Zymotics.

The Principal Zymotics include the following diseases :—1, Small-pox ; 2, Measles ; 3, Scarlet Fever ; 4, Diphtheria ; 5, Fever (including Typhus, Typhoid, and Continued Fevers) ; 6, Whooping Cough ; 7, Diarrhoea.

In 1897, 1,251 deaths were due to these causes. This is equal to a death-rate of 3·52 per 1,000 of the population.

		DEATHS FROM PRINCIPAL ZYMOTICS.	
		No. of Deaths.	Rate per 1,000.
1888	.....	1,188	3·69
1889	.....	1,107	3·39
1890	.....	1,197	3·72
1891	.....	914	2·79
1892	.....	1,060	3·22
1893	.....	1,207	3·61
1894	.....	792	2·33
1895	.....	1,176	3·22
1896	.....	1,072	3·03
1897	.....	1,251	3·52

In England and Wales the death-rate from the Principal Zymotic Diseases in 1897 was 2·15.

In the 14 largest towns (each having a population of over 200,000) the rate for the Principal Zymotics was as follows :—

LONDON	2·58	SALFORD	5·50
WEST HAM	2·61	BRADFORD	2·22
BRISTOL	1·83	LEEDS	2·80
BIRMINGHAM	3·88	SHEFFIELD	3·52
LEICESTER	3·13	HULL	3·25
NOTTINGHAM	2·81	NEWCASTLE	2·09
LIVERPOOL	3·83		
MANCHESTER	3·81		

In the 33 great towns the rate was 2·87 per 1,000. In the 67 smaller towns it was 2·41.

**TABLE X. affords a means of comparison between the Zymotic Death-rates of Sheffield during 1897 and the ten years immediately preceding, and also between the rates of Sheffield in 1897 and the average rates of the 33 large towns.*

							Birth and Death-rate to 1,000 Persons.		
							SHEFFIELD.		Average for Large Towns, 1897.
							Average for 10 years, 1887-1896.	1897.	
Births							34·1	34·4	30·7
Deaths							21·5	21·2	19·1
Deaths from Small-pox							0·23	—	0·00
Do. Measles							0·59	0·55	0·55
Do. Scarlatina							0·41	0·26	0·18
Do. Diphtheria and Membranous Croup ...							0·15	0·13	0·31
Do. Whooping Cough							0·53	0·39	0·41
Do. Fever							0·23	0·31	0·18
Do. Diarrhoea and Dysentery							1·13	1·85	1·24
Total for the above 7 Causes							3·27	3·49	2·87

*Compiled from the Registrar-General's Annual Summary for 1897.

TABLE XIII.—*Cases of Infectious Disease notified during the year 1897 under the Infectious Diseases (Notification) Act, 1889.*

DISEASES.	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	OCT.	NOV.	DEC.	TOTALS.
Small pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	145	119	132	108	85	111	139	126	154	172	176	141	1,608
Typhus Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Mem- branous Croup ... }	9	11	14	15	9	14	7	8	6	15	15	13	136
Continued Fever ...	3	...	...	...	...	...	2	1	1	2	3	2	14
Enteric Fever	27	24	19	20	10	14	38	69	170	121	80	79	671
Puerperal Fever... ..	5	4	2	5	2	3	2	3	3	1	4	3	37
Erysipelas	29	31	35	26	27	20	13	24	27	26	40	32	330
Totals	218	189	202	174	133	162	201	231	361	337	318	270	2,796

TABLE XIV.—Cases of Infectious Diseases notified since the Act came into operation.

DISEASES.	NUMBER OF CASES NOTIFIED.									Average of 8 Years.
	1890	1891	1892	1893	1894	1895	1896	1897		
Small-pox ... ..	...	...	47	102	8	1	...	...	20
Scarlet Fever	2,202	1,310	1,448	1,826	832	766	2,002	1,608	1,499	
Typhus Fever	17	...	...	...	...	...	...	...	2
Diphtheria and Mem- branous Croup ... }	276	194	296	170	149	122	138	136	185	
Continued Fever	40	45	21	35	18	12	14	14	25	
Enteric Fever	374	354	197	452	347	469	617	671	435	
Puerperal Fever	41	33	49	60	45	32	38	37	42	
Erysipelas	209	232	291	403	360	334	403	330	320	
Totals	3,159	2,168	2,349	3,048	1,759	1,736	3,212	2,796	2,528	

TABLE XV.—Showing the monthly admissions to Hospital during the year 1897 of cases of each Disease, also the average number of cases admitted suffering from these Diseases during the five years 1893, 1894, 1895, 1896, and 1897.

DISEASE.	JAN.	FEB.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	AUGUST.	SEPT.	OCT.	NOV.	DEC.	TOTAL 1897	AVERAGE OF 5 YEARS.
Small-pox ... ..	...	...	...	...	..	...	...	...	...	...	...	...	...	22
Scarlet Fever	101	75	96	77	66	69	104	84	109	82	93	78	1,034	792
Typhus Fever ... ..	...	...	...	..	...	...	...	..	...	...	...	...	...	...
Diphtheria & Mem- branous Croup. . }	2	...	2	6	1	2	2	2	...	...	3	2	22	15
Enteric Fever	21	18	9	9	4	10	27	40	62	71	39	42	352	252
Measles ... ..	...	1	...	1	...	1	2	1	...	...	...	..	6	7
Other Diseases	2	6	5	3	2	2	2	2	2	1	1	4	32	40
Total Admissions	126	100	112	96	73	84	137	129	173	154	136	126	1,446	1,128

SMALL-POX AND VACCINATION.

No cases of this disease occurred in the City during 1897. During the year the Corporation decided to erect a new Small-pox Hospital, so as to enable the whole of the Lodge Moor Hospital to be used for the accommodation of other diseases. While this is undoubtedly a wise and proper step on the part of the Corporation with a view to the prevention of Small-pox, it is regrettable to have to record that there is a large and increasing number of the general public of Sheffield who are stultifying to a considerable extent the good work done by the Corporation and the Boards of Guardians by demanding that their children shall be vaccinated in the most inefficient manner.

Every responsible person who has had experience in the checking of the spread of Small-pox knows that efficient Vaccination is by far the most important measure in the prevention of the disease. In Sheffield every year there are a large number of children vaccinated in such a way as to comply with the existing Act, but so inefficiently done as to be of little or no use as a preventive measure. In this way the Vaccination Returns for the City do not indicate its true state as regards the protective influence of Vaccination. It is also much to be regretted that a few Medical men can be found ready to yield to the pressure put on them by parents who desire to have their children vaccinated with calf lymph in such a way that the smallest vesicle possible may be produced. Such primary Vaccination gives little or no protection.

MEASLES.

One hundred and ninety-six deaths were recorded as due to Measles during 1897. This is equal to a mortality rate of $\cdot 55$ per 1,000, and is higher than the mortality rate from any other Zymotic Disease with the single exception of that from Diarrhoea.

The mortality at each age group for Measles during the past 11 years will be seen in the following Table:—

Years.	Total Deaths.	Mortality Rate per 1,000.	Males.	Females	AGE AT DEATH.							
					Under 1 Year.	1 and under 2 Years.	2 and under 3 Years.	3 and under 4 Years.	4 and under 5 Years.	5 and under 10 Years.	10 and under 15 Years.	Over 15 Years.
1887	266	$\cdot 84$	147	119	59	117	40	26	13	11	0	0
1888	52	$\cdot 16$	31	21	11	19	12	5	3	2	0	0
1889	226	$\cdot 69$	119	107	40	88	44	22	12	20	0	0
1890	235	$\cdot 73$	116	119	51	84	41	24	19	13	2	1
1891	180	$\cdot 55$	86	94	33	82	24	13	11	17	0	0
1892	248	$\cdot 75$	133	115	59	92	41	30	13	13	0	0
1893	171	$\cdot 52$	78	93	48	61	31	13	10	8	0	0
1894	170	$\cdot 50$	78	92	30	78	36	12	7	7	0	0
1895	189	$\cdot 55$	99	90	42	84	31	11	12	5	1	3
1896	208	$\cdot 59$	109	99	50	85	32	20	11	9	0	1
1897	196	$\cdot 55$	91	105	48	91	22	11	8	15	0	1
TOTAL.	2141		1087	1054	471	881	354	187	119	120	3	6
Mean..	194	$\cdot 58$	98	95	42	80	32	17	10	10	$\cdot 2$	$\cdot 5$

It will be seen that the mortality rate during 1897 was slightly below the average, and also that the mean number of deaths during these 11 years was at the rate of 194 per annum.

Of the 196 children who died during 1897, no less than 161 were under 3 years of age.

During the eleven years, 1887 to 1897, 2,141 deaths were due to Measles, and of this number 1,706 (or 79 per cent.) were of children under 3 years of age.

It will be noted, too, that during each of these years the largest number of deaths occurred during the 2nd year of life.

In Sheffield, Measles is not a notifiable disease, and it is, therefore, impossible to state the number of children who were attacked. In several towns Measles is included in the list of diseases compulsorily notifiable, and it is the general experience that the largest number of cases of Measles occurs in children during the 3rd, 4th, and 5th years of life.

It is most important to bear in mind the fact that if children can be prevented from "taking" Measles until they are five years of age not only are they to some extent less likely to be attacked, but also should they be attacked the chance of a fatal termination is very much diminished.

Since 1896 a system of notification of cases of Measles coming to the knowledge of school teachers has been in vogue in Sheffield, and during 1897 no less than 2,690 cases were so reported. It is almost certain that if greater use could be made of the information thus obtained that beneficial results would follow. When Measles becomes epidemic in any district it is impossible, with the present staff, to do more than visit the reported cases with a view to giving instructions as to preventing the spread of the disease. It is much to be desired that further inquiries should be made in each district with a view to finding out cases that are not reported, and also that further visits should be made to the infected houses to ascertain that reasonable precautions are being taken.

The following Schedule of inquiries has been brought into use with a view to systematising the information obtained :—

MEASLES. No.

Name.....
Address.....
By whom first Reported.....
.....
Whether verified by Inspector.....
.....
School Notice No.
.....
Library Books in House.....
Business carried on.....
Probable Sources of Infection.....
.....
.....
.....

CHILDREN UNDER 14 YEARS IN HOUSE.

Age.		School and Class.	Date of Rash.	Last at School.
M.	F.			

Copy of Instructions left

Signed

..... Inspector.

At each house the Inspector reads over the following Instructions, and leaves a copy :—

INSTRUCTIONS FOR DEALING WITH MEASLES.

- A DANGEROUS Measles is one of the most dangerous of all the infectious diseases. No
DISEASE. less than 200 children die on an average every year from it in Sheffield.
 It must be remembered, too, that for every child who dies, several have their
 lives imperilled by the disease.
- POPULAR No child need suffer from Measles. It is very wrong to suppose that
ERROR. every child must suffer from it at some time.

EARLY SYMPTOMS. Measles usually begins with one or more of the following symptoms :— Sneezing, Coughing, Cold in the Head, Running at the Eyes and Nose, and sometimes with Vomiting and Shivering After about 2 to 3 days the rash comes out. The disease is very infectious from the earliest of the above symptoms.

PRECAUTIONS TO BE ADOPTED. Every child suffering from one or more of the above symptoms should be carefully watched, and if any suspicion of Measles exists, the child should be kept home from School.

VERY IMPORTANT. Keep every child suffering from Measles in bed for the first week at least, and afterwards in one room for the following two weeks. This will assist in keeping away Bronchitis and Inflammation of the Lungs. The room used as a sick-room should not be entered by any other child.

KEEP CHILDREN FROM SCHOOL. Whenever a case of Measles occurs in your house, keep every child away from School and from Sunday School. A Certificate for this will be given, free of charge, by the Medical Officer of Health, on applying at the Town Hall.

HOW TO DISINFECT. At the end of three weeks, provided the patient has recovered, disinfect the room by washing every article of clothing, bedding, &c., by beating and airing the carpet, and by dusting down the walls and washing the floor, paint-work, and furniture, with soap and warm water. Special care must be taken that no child be allowed to return to School until all infected clothing has been washed.

OFFENCES. The following are offences punishable by law :—
I.—The exposure of infected persons in any street, public place, shop, or public conveyance.
II.—Giving, lending, selling, transmitting, or exposing without previous disinfection any bedding, clothing, rags, or other things which have been exposed to infection.

N.B.—It cannot be too plainly pointed out that Measles often runs its course with great rapidity, and if Medical advice be not sought early, serious harm may result.

JOHN ROBERTSON,
MEDICAL OFFICER.

Town Hall, Sheffield.

SCARLET FEVER.

The deaths of 93 persons (56 males and 37 females) were registered during 1897, as due to Scarlet Fever. This gives a mortality rate of .26 per 1,000 of the population. In the preceding 10 years the rate was .41 per 1,000. In the 33 great towns it was .18, and in England and Wales it was .14 per 1,000 during 1897.

Scarlet Fever	1890	1891	1892	1893	1894	1895	1896	1897
Notified Cases of Scarlet Fever ...	2202	1310	1448	1826	832	766	2002	1608
Deaths... ..	264	113	63	89	40	36	100	93
Percentage Mortality	11.9	8.6	4.3	4.8	4.8	4.6	4.9	5.6

The notified cases of Scarlet Fever were distributed throughout the year as follows :—

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total cases	145	119	132	108	85	111	139	126	154	172	176	141
Removed to Hospital ..	101	75	96	77	66	69	104	84	109	82	93	78
Treated at Home ...	44	44	36	31	19	42	35	42	45	90	83	63

It will be seen from the above that, with the exception of May, in each month during the year over 100 new cases of Scarlet Fever were reported. That is to say the disease was at no time epidemic, although it continued to be prevalent during the whole year.

During the year 1897 a larger percentage of the cases of Scarlet Fever was removed to Hospital than during any previous year, but while this was so the number of cases treated at home was so large that the good work done by the Hospital was minimised by the spread of the disease by the home treated cases.

The Citizens of Sheffield are beginning to realise that Hospital treatment of cases of Scarlet Fever is much superior to home treatment. The death-rate is less in Hospital cases than in home treated cases—in 1897 the percentage mortality among 574 home treated cases was 7·5 per cent., while among Hospital treated cases it was 4·8 per cent. This is due to the constant supervision and nursing.

The fact that children recovering from Scarlet Fever have large airy wards to play in, together with the fact that when the weather is suitable they are allowed outside, enables the Hospital treated cases to be sent home in a much better state of health than home treated cases, where children have for the most part to be kept almost in a state of solitary confinement for six or eight weeks in small bedrooms. For this reason the value of our Hospital at Lodge Moor cannot be over estimated, and, although the distance is inconvenient, yet the bracing and healthy situation of it far outweighs any inconvenience as regards distance. While these are some of the points of special value in the Hospital treatment of cases of Scarlet Fever, it must be remembered that they do not include those which form the very *raison d'être* of every Fever Hospital.

The chief value of the Hospital is not to the individual but to the general public.

By removing cases of Scarlet Fever to Hospital the general public are to a very large extent protected, for it is common knowledge that it is most difficult, and in many cases impossible, to prevent the spread of Scarlet Fever from cottage houses. It usually happens that parents adopt the most stringent precautions at the commencement of the illness, but in the majority of cases these become irksome and neglected long before the infectious period is past, with a result that infection frequently spreads. There is even greater necessity for the Hospital treatment of cases of Scarlet Fever in Sheffield than in most other manufacturing towns on account of the very large number of houses built in court yards—houses built with a yard common to four to ten houses.

There is also the additional advantage that when a child has been removed to Hospital the other children in the house need not be kept from school for more than a week. When the case is treated at home these children are kept from school for six or eight weeks.

The saving of expense to the parents is a matter of considerable importance in many cases.

The Hospital accommodation for Scarlet Fever cases in Sheffield is insufficient. It is almost certain that if larger accommodation had existed during 1897 fewer cases would have occurred. During a considerable portion of the year only the more urgent cases were admitted. It was impossible to offer Hospital treatment to every case of Scarlet Fever occurring in a small house, and therefore, the applications for admission do not in any way represent the true number of persons who would most willingly have availed themselves of the Hospital. But notwithstanding the insufficiency of the accommodation the Hospitals have been most valuable in limiting the spread of the disease during the year.

There is no hard and fast rule to guide us in determining the number of beds required for Scarlet Fever cases. It is not necessary to provide for all the cases during an epidemic period, as the Hospital exists to prevent such epidemic occurring, but unless there is sufficient accommodation to take in all the cases requiring isolation during such a prevalence as occurred in 1897 the risk of an epidemic is very great, and the usefulness of the Hospital is much diminished. It has been found in other towns that the accommodation for all infectious cases should be about 1 bed for every 1,000 of the population. This would mean that in Sheffield we should have at least 360 beds, and from the facts that have already been mentioned it would be advisable to get accommodation for probably 400 beds. At present there is actual accommodation for 198 beds, although frequently as many as 250 persons are treated at one time at present. It is necessary in a Fever Hospital to have a large reserve of accommodation over and above that which is ordinarily required, and it is, therefore, bad policy to have only such a number of beds as can be kept occupied during the whole year. In this respect Fever Hospitals differ from General Hospitals.

During 1897 the Hospital Committee decided to recommend that a new administrative block should be built at Lodge Moor, and this was affirmed by the Council. This will add about 30 beds to our existing accommodation. This addition, together with the new Small-pox Hospital, will leave us short of the accommodation which is actually required by about 150 beds.

DIPHTHERIA OR MEMBRANOUS CROUP.

The deaths from this disease numbered 48 (23 Males and 25 Females). This is equal to a death-rate of $\cdot 13$ per 1,000 of the population, against a rate of $\cdot 15$ in the preceding ten years. In the 33 great towns the rate was equal to $\cdot 31$ per 1,000, and in England and Wales it was $\cdot 24$ per 1,000.

No less than 40 of the 48 deaths occurred in children under five years of age.

The number of reported cases of this disease was 136, so that the mortality was equal to 35 per cent.

Twenty-two of the 136 cases were removed to Hospital.

It is gratifying to have to record the fact that Sheffield continues to enjoy a comparative immunity from this very fatal disease. This is specially so in view of the fact that a number of other towns have suffered severely from outbreaks of Diphtheria within recent years.

WHOOPIING COUGH.

One hundred and thirty-nine deaths were due to Whooping Cough during 1897. This is equal to a mortality rate of $\cdot 39$ per 1,000. During the preceding ten years the rate was equal to $\cdot 53$ per 1,000. In 1897 the rate was $\cdot 41$ in the 33 great towns, and varied from $\cdot 09$ in Halifax to $\cdot 63$ in Blackburn.

The mortality from Whooping Cough is specially heavy among infants and young children, and in this respect the disease resembles measles in that the greatest care should be taken to prevent children under five years of age from becoming affected, as the risks of a fatal termination are so much greater among young children than among older children.

During 1897 the deaths occurred at the following age periods:—

Under 1 year	...	...	...	...	61
1 and under 2 years	...	...	...	...	35
2 ,, 3	,,	...	...	...	18
3 ,, 4	,,	...	...	...	6
4 ,, 5	,,	...	...	...	8
5 ,, 10	,,	...	...	...	11
Over 10 years	...	...	...	...	0
TOTAL					139

The Registration Districts of North, Brightside East and West, Nether Hallam, and Ecclesall were most severely affected.

FEVER.

Under the heading Fever the Registrar-General groups the three diseases known as Typhus Fever, Enteric or Typhoid Fever, and Simple or Continued Fever.

(a) TYPHUS FEVER.—On two occasions during 1897 cases of Typhus Fever were reported, but on each occasion, after further observation, it was found that the cases were Enteric in their nature.

(b) ENTERIC OR TYPHOID FEVER.—No less than 110 deaths were due to this disease. This is equal to a mortality rate of $\cdot 31$ per 1,000 of the population. It is considerably higher than the mean rate for the preceding ten years, which was $\cdot 23$ per 1,000. In only one of the 33 great towns was as high a death-rate registered from this disease during 1897. In the 67 other large towns eight had higher rates from this disease than Sheffield.

The reported cases of sickness from this disease were more numerous during 1897 than during any year since the Notification Act came into force.

In the following Table will be found the reported cases of sickness in each of the Registration Sub-Districts for each complete year since the Notification Act came into force.

Reported Cases of Sickness—Enteric Fever.

YEAR.	REGISTRATION SUB-DISTRICTS.										SICKNESS RATE PER 1,000
	WEST.	NORTH.	SOUTH.	PARK.	BRIGHTSIDE.	ATTERCLIFFE.	NETHER HALLAM.	UPPER HALLAM.	ECCLESALL.	TOTAL CASES.	
1890	10	48	22	10	67	30	66	2	109	364	1·13
1891	19	62	20	23	62	38	56	...	111	391	1·20
1892	10	16	9	7	55	11	28	...	61	197	0·59
1893	12	65	25	20	147	28	35	1	120	453	1·35
1894	7	120	14	13	79	15	40	...	61	349	1·03
1895	28	101	24	21	95	42	28	...	131	470	1·37
1896	23	48	21	73	184	67	48	1	153	618	1·77
1897	25	96	44	77	104	61	62	1	203	673	1·91
TOTALS ...	134	556	179	244	793	292	363	5	949	3515	.....
Sickness Rate per 1,000, 1897.	1·85	2·63	2·34	3·44	1·40	1·43	1·20	0·35	2·25		1·91

It will be noted that the Districts of North, South, Park, and Ecclesall were most severely affected during 1897.

In order to ascertain whether the disease was persistently present in one district more than in another the following table has been worked out. In order to arrive at the figures there shown the sickness rate per 1,000 was obtained for each district for each of the years 1890 to 1897.

The figures in the Table show the percentage above or below the mean rate for the whole City which obtained in the Registration Sub-Districts.

Percentage of Sickness in each Registration Sub-District above or below the mean rate for the year.

YEAR.	REGISTRATION SUB-DISTRICTS.								
	WEST.	NORTH.	SOUTH.	PARK.	BRIGHT-SIDE.	ATTER-CLIFFE.	NETHER HALLAM.	UPPER HALLAM	ECCLES-ALL.
1890	- 37	+ 12	+ 5	- 58	- 10	- 24	+ 27	- 34	+ 20
1891	- 12	+ 37	- 9	- 10	- 23	- 12	+ 0·1	- 100	+ 13
1892	+ 19	- 28	- 18	- 45	+ 34	- 50	- 1	- 100	+ 23
1893	- 36	+ 28	- 0·6	- 32	+ 55	- 45	- 46	- 73	+ 5
1894	- 51	+ 215	- 27	- 42	+ 8	- 63	- 20	- 100	- 31
1895	+ 48	+ 99	- 6	- 30	- 3	- 24	- 59	- 100	+ 9
1896	- 5	- 26	- 36	+ 86	+ 42	- 9	- 46	- 80	- 3
1897	- 2	+ 37	+ 22	+ 80	- 26	- 25	- 37	- 81	+ 17

It will be seen that the prevalence of Enteric Fever has varied from year to year in the different districts—but that with certain exceptions the variation has not been large.

The large number of cases occurring during the past two years means that with our very imperfect methods of dealing with the infectious matter from Typhoid Patients a large amount escapes destruction, and that should these years be followed by others with favourable meteorological conditions a recrudescences of the disease may be expected.

The chief points which have to be attended to in preventing such a recrudescence are :

1st. The abolition of the foul privy middens in the populous areas of the City, and the substitution of water closets.

2nd. The prevention of the very common custom in Sheffield of throwing slop waters on the surface of streets and yards.

3rd. The collection and destruction of all infectious matter from the houses of patients who are not removed to Hospital, so as to prevent as far as possible the infection of middens, drains, &c.

The following are copies of the inquiry form, and the instructions for dealing with cases of Enteric Fever, which were drawn up during the year:—

Copy of Printed Instructions left.....

Registration No.....

NAME..... AGE.....

ADDRESS.....

FAMILY.	Adults	Children.	Lodgers	Adults	Children.
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MEDICAL ATTENDANT, DR.....

First called in..... Notification received.....

HOUSE. New, about years old. Back to back. Through. Good repair. Clean. Dry.
(.....Living rooms.Bedrooms.Cellars.)

YARD. Private. Common to houses. Condition as to soil pollution

WATER CLOSET. Inside. Outside. Condition.

PRIVY MIDDEN.	Open.	Covered.	Drained.	Leaking.	Wet.	Foul.
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When last emptied.....

DRAINAGE.	Surface.	Rubble.	Pipe.	Tested.	Not tested.	Gullies.	Sumps.
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WATER SUPPLY..... Cistern.....

MILK SUPPLY.....

OTHER FOODS.....

NUISANCES.....

BUSINESS CARRIED ON.....

LIBRARY BOOKS.....

Patient and Medical Attendant desires removal to Hospital.

Isolated in Bedroom.	Living Room.	No Isolation.
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Separate Attendant.	Other duties of Attendant.....
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Previous health of Patient

Do. of Persons in house.....

How long resident in house years. First felt ill.....

Suspected source of illness.....

.....

.....

Previous cases in same house or yard.....

Recent illness in house.....

REMOVED TO
HOSPITAL.

OCCUPANTS OF THE HOUSE.

[illegible]

*A—Had Typhoid Fever.

B—Not had Typhoid Fever.

C—Now ill of Typhoid Fever.

NOTES.

Signed,

INSPECTOR.

INSTRUCTIONS FOR PREVENTING THE SPREAD OF TYPHOID FEVER.

The enclosed Instructions have been drawn up with a view to assisting those who are responsible by law for taking measures for preventing the Spread of Typhoid Fever:—

It cannot be too strongly insisted on that it is to the great benefit of the sufferer, as well as to the inhabitants of the City, that all cases of Typhoid Fever should be removed as early as possible to Hospital, unless one healthy room can be set aside as a sick room, and one person devote the whole of her time in attending on the sick person during the whole time the infection lasts.

REMOVAL TO HOSPITAL,	}	ARE SUPPLIED FREE OF CHARGE BY THE CORPORATION.
TREATMENT IN HOSPITAL,		
A SUPPLY OF DISINFECTANTS,		
AND ASSISTANCE IN DISINFECTING THE HOUSE,		

INSTRUCTIONS FOR PREVENTING THE SPREAD OF TYPHOID FEVER.

- 1.—Typhoid Fever is an Infectious Disease, and the mildest case may infect others fatally.
- 2.—A case is infectious from the first symptoms of illness until the patient is well again.
- 3.—The patient must be kept in a room apart from the rest of the family, and nothing in this room ought to be used by others, or removed out of it until it has been thoroughly disinfected.
- 4.—Select for the sick room a room upstairs, and one, if possible, with a fireplace.
- 5.—All needless articles, as carpets, hangings, contents of drawers and cupboards, and everything which is not to be used in the nursing of the patient should be removed, if possible, before the patient enters.
- 6.—No cups or dishes should be taken from the room, and no waste food should be eaten by any other person than the patient.
- 7.—Motions and urine should be received into an utensil containing a strong Disinfectant, and Discharges from the Nose and Mouth should be received into a piece of rag and afterwards burned.

8.—Collect the motions, urine, and water used in washing the patient in a suitable utensil; then add a large proportion of a strong Disinfectant, and allow this to stand for at least four hours, to permit of the disinfectant doing its work. The contents should then be carefully poured down the W.C. or suitable gully, followed by one or two bucketfuls of water to flush the drain. Great care must be taken that no infected material is allowed to spill over the yard or other surface near the gully. Infected matter must not be put into any ashpit.

9.—Bed clothes and soiled things should be steeped in water containing a Disinfectant. The clothes thus steeped for 24 hours should then be boiled and washed in the ordinary way, quite separate from all other things.

10.—Books and papers which have been in the sick room should be burned. No letters should be written in the sick room.

11.—The person nursing should wear a loose cotton gown over the ordinary clothes while in the sick room. The nurse on leaving the sick room should thoroughly wash her hands, and then should remove her loose covering gown.

12.—The person nursing should take every possible care to keep her hands clean by washing them frequently in a disinfectant solution—this should be done always after attending the patient—and the towel with which they are dried should be used for no other purpose, and should be treated as a soiled cloth.

13.—The nursing of the patient should be kept in the hands of one competent person, but if any assistance is given by any other person, especially when such assistance has to do with the patient's bowel discharge, the greatest care should be taken with the disinfection and cleansing of the hands afterwards.

14.—A sheet steeped in a Solution of Disinfectant should be hung completely across the doorway outside the sick room.

15.—Children from an infected house where the above precautions are adopted, need not be kept away from school.

16.—After the patient has quite recovered, the house should have every room thoroughly fumigated with Brimstone, ceilings whitewashed, and walls (if papered) brushed down or re-papered. Floors, woodwork, and furniture must be washed with soft soap and hot water containing a disinfectant.

17.—It is the duty of every person in whose house a case of Typhoid Fever is being treated, to remember that he or she may be responsible for giving the Fever to another person, if the above precautions are not most carefully attended to.

18.—When it is necessary to remove an infected person from one house to another, or to Hospital, a suitable Carriage is provided gratuitously on application at the Hospital or Health Office; but the exposure of infected persons by carrying them through the streets or conveying them in a public vehicle is an illegal act, which will be severely dealt with.

JOHN ROBERTSON,

MEDICAL OFFICER.

*Medical Officer of Health's Department,
Town Hall, Sheffield.*

Persons suffering from Typhoid Fever, or those in charge of such persons, are responsible by law for the following:—

- I.—Causing to be notified to the Medical Officer of Health, at the Town Hall, the existence of Typhoid Fever cases.
 - II.—Preventing the exposure of infected persons in any street, public place, shop, or public conveyance.
 - III.—Giving, lending, selling, transmitting, or exposing without previous disinfection any bedding, clothing, rags, or other things which have been exposed to infection.
 - IV.—Throwing of infectious rubbish into an ashpit without previous disinfection.
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DIARRHŒA.

Diarrhœa was unusually prevalent and fatal during 1897. It was returned as the cause of no less than 663 deaths (334 Males and 329 Females). This is equivalent to an annual death rate of 1·85 per 1,000 per annum, which is greater than the death rate from all the other Zymotic diseases added together. Out of every 11 deaths which took place in Sheffield during 1897 one was due to this disease.

The death rate from Diarrhœa during the preceding ten years was at the rate of 1·13 per 1,000. In the 33 great towns the rate was 1·24 in 1897, and ·84 in the preceding ten years.

It varied from .21 in Swansea to 2.23 in Preston and Hull. Five of the 33 large towns had death-rates from Diarrhœa higher than that in Sheffield, and six of the 67 other large towns had higher rates.

The ages at which deaths occurred were as follows :—

Under 1 year	...	...	...	...	485
1 and under 2 years	...	...	...	...	115
2 „ 3 „	...	...	...	...	14
3 „ 4 „	...	...	...	...	3
4 „ 5 „	...	...	...	...	0
5 „ 10 „	...	...	...	...	3
10 „ 45 „	...	...	...	...	2
Over 45 years	...	...	...	...	41

The period during which Diarrhœa was most prevalent is indicated in the following table :—

1897.

JAN.	FEB.	MAR.	APRIL	MAY	JUNE	JULY	AUG.	SEP.	OCT.	NOV.	DEC.
4	6	...	2	4	8	104	380	118	25	10	2

The distribution of the deaths was as follows :—

WEST	...	...	...	34	ATTERCLIFFE	...	...	87
NORTH	...	...	...	96	NETHER HALLAM	...	...	76
SOUTH	...	...	...	42	UPPER HALLAM	...	...	1
PARK	...	...	...	60	ECCLESALL	...	...	103
BRIGHTSIDE	...	...	...	164				

The cases of death from Diarrhœa may be divided roughly into two groups : (a) Those due to the Zymotic disease, Summer Diarrhœa. (b) Those due to a miscellaneous variety of causes other than “a.” This second group contains but a small number of cases, and may be passed over without comment.

The deaths due to Summer Diarrhœa are confined almost entirely to children under two years of age, and it may be said that from statistical inquiry made in other towns, together with casual observations made in Sheffield, that the cause of this great mortality is intimately connected with the feeding of these young children during the warmer months of the year.

Infants who are fed at the breast suffer to a very small degree. It is found that the children who suffer most are those who get dirty milk, in dirty bottles, and who are exposed to dirty surroundings. A very great deal can be done to reduce this heavy mortality, which affects the healthy and robust children as much as those that are delicate.

The points which require attention are :—

1st.—That the milk supply to the City shall be from cows kept in the cleanest conditions, and delivered without being exposed to the emanations from decomposing filth, and free from dust. It is much to be desired that sterilized milk should be obtainable at a reasonable cost.

2nd.—Diffusion of a knowledge of the points to be attended to in the rearing of young children is greatly needed. Not only are children fed on most unsuitable and often disease producing foods, but they are allowed to get into such a state of dirt that disease becomes prevalent whenever the climatic conditions allow it.

B. MINOR ZYMOTICS.

INFLUENZA was the cause of 101 deaths during 1897, against 7 in 1896, 61 in 1895, 14 in 1894, and 100 in 1893. These 101 deaths occurred mainly during the spring of 1897. In 82 of the 101 deaths the age of the person was over 45 years. No area in the town appears to have been specially severely affected.

ERYSIPELAS caused 14 deaths. There were 330 cases reported of sickness from this disease.

	1890	1891	1892	1893	1894	1895	1896	1897
Reported Cases of Sickness... ..)	209	232	291	403	360	335	403	330
Deaths	27	20	14	28	12	16	21	14

PUERPERAL FEVER.—37 cases of sickness from this disease were reported and 21 deaths were registered from it during 1897. There can be but little doubt but that the above figures do not in any way represent the true number of cases of this disease which occurred in Sheffield in 1897.

The Notification of Infectious Diseases Act requires that all cases of Puerperal Fever shall be reported. The term Puerperal Fever is one the limitations of which are so indefinite as to cause great confusion. It was obviously intended that every case of septic poisoning during the puerperium should be reported. In practice it is found that only cases in which death threatens are reported. In the majority of cases the patient is moribund or dead before the report reaches the Health Office.

During 1897 one mother died from this disease after childbirth in every 577.

In every case the midwife or nurse was advised to cease attending any lying-in case for 14 days, to have a series of baths, and to send her clothing for disinfection.

It was pointed out that were these precautions not followed accurately she might be held responsible for any further cases which might occur in her practice.

PLUMBISM.

As in former years, a table of deaths from this cause is appended. It will be seen that 6 of the 7 deaths occurred among File-cutters. It is impossible to say how many persons are now engaged in this trade in Sheffield. At the census of 1891 there were nearly 6,000. Practically no precautions are taken by a large majority of File-cutters to prevent Plumbism.

The workshops in which they work are in many instances unhealthy—the workers have their meals in the shops and have no provision whatever for washing their hands.

During 1897 a Departmental Inquiry was held by the Home Office, as to the conditions under which File-cutters work, and it is to be hoped that good results will follow.

Deaths from Plumbism, 1897.

DATE.	NAME.	SEX.	AGE.	TRADE.	CAUSE OF DEATH.
Jan. 20th.	J. W. E.	M.	35	File-Cutter.	Plumbism, Uræmia, Aortic Disease.
Feb. 10th.	J. S.	M.	54	Do.	Chronic Plumbism, Bronchitis, Exhaustion
May 3rd.	C. E. D.	M.	44	Do.	Lead Poisoning, Paralysis.
July 6th.	J. H.	M.	63	Do.	Plumbism, Nervous Exhaustion.
July 24th.	S. B.	M.	50	Do.	Plumbism, Bright's Disease.
Nov. 4th.	J. C.	M.	64	Seythe-smith.	Lead Poisoning, Bronchitis.
Dec. 17th.	E. H. P.	M.	38	File-cutter.	Lead Poisoning, Dementia.

The deaths in former years were as follows:—

1874	...	...	2	1882	...	...	3	1890	...	...	7
1875	...	...	2	1883	...	...	2	1891	...	...	10
1876	...	...	1	1884	...	...	6	1892	...	...	8
1877	...	...	1	1885	...	...	4	1893	...	...	6
1878	...	...	5	1886	...	...	11	1894	...	...	9
1879	...	...	3	1887	...	...	3	1895	...	...	5
1880	...	...	2	1888	...	...	16	1896	...	...	3
1881	...	...	1	1889	...	...	9	1897	...	...	7

Of the **126** deaths recorded during these years **105** were of males and **21** of females.

As regards the occupations of these persons, **81** were file-cutters, 9 lead workers, 5 painters, 4 plumbers, 1 grinder, and 1 scythe-smith.

The ages at death were as follows:—

Under 15 years	...	...	...	...	...	...	2 deaths.
15 and under 25 years	...	...	...	...	...	...	11 „
25 „ 35 „	...	...	...	...	...	...	24 „
35 „ 45 „	...	...	...	...	...	...	37 „
45 „ 55 „	...	...	...	...	...	...	35 „
55 „ 65 „	...	...	...	...	...	...	15 „
Over 65 years	...	...	...	...	...	...	2 „

CANCER.—The deaths from this disease are set out in the accompanying table as in 1896.

The total number of deaths was 233 in 1897, against 225 in 1896, 208 in 1895, 207 in 1894, and 184 in 1893.

DEATHS FROM CANCER DURING 1897.

ORGANS AFFECTED.	TOTALS.—ALL AGES.			Under 5 years		5 & under 10 years		10 & under 15 years		15 & under 20 years		20 & under 25 years		25 & under 35 years		35 & under 45 years		45 & under 55 years		55 & under 65 years		65 & under 75 years		75 years and over.	
	Total.	Male.	Female.	M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		M.	
				M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Larynx	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	1	...	...	...	...	...	...
Lung	3	2	1	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...
Tongue	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...
Lip.....	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Neck	4	4	...	1	...	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...
Thyroid	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Throat	3	3	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	...	...
Uterus	35	...	35	...	...	...	...	...	...	...	...	...	...	2	...	6	...	16	...	6	...	5	...	...	...
Cervix	4	...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	...	...	...	...	...
Pelvis.....	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Rectum	16	8	8	...	...	...	...	...	...	...	...	...	1	...	...	1	...	3	4	4	2	...	1	...	...
Penis	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	...
Breast	21	...	21	...	...	...	...	...	...	...	...	...	1	...	3	...	7	...	6	...	2	...	2	...	...
Stomach	21	7	14	...	...	...	...	...	...	...	...	...	...	...	3	3	1	3	8	1	2	...	...	...	...
Œsophagus	5	5	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	3	...	...	...	...	...
Pharynx.....	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
Omentum	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
Abdomen	4	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	...	...	...
Intestines	4	3	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	...	...	...	...
Colon	5	2	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	1	1	...	...
Peritonæum	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Liver	48	24	24	...	...	...	...	...	...	...	...	...	1	...	1	...	5	9	11	7	4	7	2	1	...
Pancreas	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Bladder	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
Pylorus	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
Bones.....	15	13	2	...	...	...	...	...	...	1	...	1	...	1	...	3	1	4	...	2	...	2	...	...	...
Groin.....	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...
Not specified	25	13	12	1	...	1	...	...	1	...	1	...	1	2	2	1	2	2	2	5	2	...	...	2	...
Totals...	233	96	137	3	...	1	...	...	1	...	2	...	2	7	8	15	24	43	30	44	20	21	5	7	...

TUBERCULAR DISEASES.

It is convenient to group the various diseases due to the Tubercle Bacilla under one head. The diseases are Tubercular Meningitis, Acute Hydrocephalus, Tabes Mesenterica, Phthisis, and other forms of Tuberculosis and Scrofula.

716 deaths were due to these diseases, against 664 in 1896, 800 in 1895, 721 in 1894, and 817 in 1893.

From Phthisis alone 522 deaths occurred. This is equal to a rate of 1.48 per 1,000 of the population, and although it is actually a very high rate of mortality, and one which can to a large extent be reduced, yet this rate in Sheffield is not so high as it is in many other towns.

Diseases of the Nervous System caused 879 deaths in 1897, against 891 in 1896.

Of the 879 deaths no less than 338 deaths were due to Convulsions. If inquiry were made into the cause of these cases of Convulsions it would be found that the great majority were induced by injudicious feeding of the children. 267 of these deaths were of children under one year of age.

Diseases of the Respiratory System caused 1,526 deaths. Of this number 787 were due to Pneumonia, and 691 were due to Bronchitis. The rate of mortality from this group is relatively a high one for Sheffield.

TABLE XI.—*Causes of Death at Different Periods of Life in the two Sexes, for the year 1897,*

[illegible]

TABLE XI.—Continued.

[illegible]

TABLE XI.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.		
	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total	
DEVELOPMENTAL DISEASES.																																							
Premature Birth...	219	126	93	126	93	...	...	...	...	...	...	...	126	93	219	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atelectasis ...	20	14	6	14	6	...	...	...	...	...	...	...	14	6	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cyanosis ...	1	1	...	1	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Spina Bifida ...	9	4	5	4	4	...	...	...	1	...	...	...	4	5	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Imperforate Anus ...	2	1	1	1	1	...	...	...	...	...	...	...	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cleft Palate, Hare Lip ...	2	2	...	2	...	...	...	...	...	...	...	...	2	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Congenital Defects...	16	5	11	5	9	...	...	...	1	...	...	...	5	10	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Old Age ...	272	104	168	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for Developmental Diseases ...	541	257	284	153	113	...	...	...	2	...	...	...	153	115	268	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE NERVOUS SYSTEM.																																							
Inflammation of the Brain and its Membranes...	143	82	61	26	18	20	7	7	10	5	4	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Apoplexy ...	228	95	133	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Softening of Brain ...	38	18	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
HemiplegiaBrainParalysis	55	29	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Paralysis Agitans ...	2	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Insanity, Gen. Paralysis of	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Insane ...	6	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Chorea ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Epilepsy ...	9	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions ...	338	193	145	155	112	21	22	7	3	...	...	...	187	139	326	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Laryngismus Stridulus ...	13	6	7	5	4	1	1	...	...	...	...	...	6	6	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Idiopathic Tetanus ...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TABLE XI.—Causes of Death at Different Periods of Life in the two Sexes, for the year 1897.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 60 years.		60 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
DISEASES OF ORGANS OF SPECIAL SENSE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
Otitis, Otorrhea ...	8	3	5	2	1	1	...	1	...	1	...	1	...	2	4	6	1	1</

TABLE XI.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 years.		45 years.		55 & under 60 years.		60 & under 65 years.		65 & under 75 years.		75 years.		85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.							
	Total	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total						
DISEASES OF RESPIRATORY SYSTEM.																																																
Laryngitis ...	9	4	5	2	3	1	...	1	...	2	5	7	1		
Croup ...	11	7	4	1	...	1	3	...	2	...	6	3	9	1	1		
Other Diseases of Larynx and Trachea ...	1	1	1	...	1	...	1		
Emphysema and Asthma...	9	4	5		
Bronchitis ...	691	369	322	111	86	33	30	9	10	3	4	...	1	156	131	287	1	4	
Pneumonia ...	787	487	300	114	59	59	64	25	20	10	9	10	6	218	158	376	9	7	2	5	6	1	14	34	22	47	21	56	21	43	13	17	14	33	27	7	10	1	1	269	142	411						
Pleurisy ...	10	8	2	1	1	...	1	
Other Diseases of Respiratory System...	8	5	3	
Total for Diseases of Respiratory System ...	1526	885	641	227	148	93	94	36	31	16	14	12	10	384	297	681	12	12	4	6	7	2	15	3	41	26	61	30	93	37	72	31	48	51	99	95	45	44	4	7	501	341	845					
DISEASES OF DIGESTIVE SYSTEM.																																																
Stomatitis ...	2	1	1	...	1	1	1	1	2	
Dentition ...	56	32	24	17	19	15	5	32	24	56
Sore Throat, Quinsy ...	4	...	4	2	1	3	...	1	
Dyspepsia ...	3	...	3	...	2	2
Hæmatemesis ...	1	1
Melæna
Disease of Stomach ...	54	22	32	12	17	...	3	...	1	12	21	33	1	1	
Enteritis ...	207	118	89	85	58	17	13	3	1	2	...	1	1	108	73	181	1	1	...	1	1	...	1
Ulceration of Intestines...	5	3	2	1	1	...	1
Stricture or Strangulation of Intestines
Obstruction of Intestine...	26	12	14	2	1	1	2	4	2	1	1
Intussusception of Intestine ...	8	5	3	2	2	1	3	2	5	1
Hernia ...	8	2	6
Fistula ...	1	1
Peritonitis ...	27	12	15	1	1	1	1	1	3	2	5	1	1	...	1	2	1	3
Ascites ...	3	2	1

TABLE XI.—Continued.

CAUSE OF DEATH.	TOTALS—ALL AGES.			Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.			5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 60 years.		60 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.							
	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total	M.	F.							
DISEASES OF THE ORGANS OF GENERATION.																																																
Ovarian Disease ...	13	..	13	2		
Diseases of Uterus and Vagina ...	3	...	3		
Disorders of Menstruation	
Pelvic Abscess	
Perineal Abscess...	1	1	...	1	1	
Diseases of Testes, Penis, and Scrotum	
Other Diseases of Organs of Generation	
Total for Diseases of Organs of Generation	17	1	16	1	2	...	1	
DISEASES OF PARTURITION.																																																
Abortion, Miscarriage ...	6	...	6	1
Puerperal Mania...	4	...	4
Puerperal Convulsions ...	9	...	9	4
Placenta Prævia, Flooding	5	...	5	2
Phlegmasia Dolens
Other Accidents of Child-birth...	13	...	13	1
Total for Diseases of Parturition ...	37	...	37	8
DISEASES OF ORGANS OF LOCOMOTION.																																																
Caries, Necrosis ...	20	12	8	1
Arthritis, Ostitis, Perio-stitis ...	5	3	2
Other Diseases of Organs of Locomotion ...	4	2	2
Total for Diseases of Organs of Locomotion ...	29	17	12	1

TABLE XI.—Causes of Death at Different Periods of Life in the two Sexes, for the year 1897,

CAUSE OF DEATH.	TOTALS—ALL AGES.		Under 1 year.		1 & under 2 years.		2 & under 3 years.		3 & under 4 years.		4 & under 5 years.		TOTALS—UNDER FIVE YEARS.		5 & under 10 years.		10 & under 15 years.		15 & under 20 years.		20 & under 25 years.		25 & under 35 years.		35 & under 45 years.		45 & under 55 years.		55 & under 60 years.		60 & under 65 years.		65 & under 75 years.		75 & under 85 years.		85 years & upwards.		TOTALS—ABOVE FIVE YEARS.																													
	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total																											
DISEASES OF THE INTEGUMENTARY SYSTEM.																																																																				
Carbuncle																							
Phlegmon, Cellulitis	...	1	1																						
Eczema	...	2	1	1	1																					
Lupus																					
Ulcer, Bed sore	...	12	4	8																				
Pemphigus	...	1	...	1	1																					
Other Diseases of the Integumentary System	...	1	1																				
Total for Diseases of the Integumentary System	17	6	11	...	3	1	4	1	3																			
ACCIDENTS AND NEGLIGENCE																																																																				
Fractures and Contusions	...	62	53	9	5	4	9																		
Gunshot Wounds																		
Cut, Stab...	...	1	1																	
Burn, Scald	...	45	20	25	12	9	21																	
Poison	...	2	2	2	2																	
Drowning	...	8	5	3	2	2																	
Suffocation	...	23	10	13	9	13	22																	
Otherwise	...	8	7	1																	
Total for Accidents or Negligence...	149	98	51	9	13	4	4	7	6	4	3	4	2	56	28	28																	
HOMICIDE.																																																																				
Murder	...	1	1													
Manslaughter	...	3	2	1	1	1	2										
Total for Homicide	4	3	1	1	2	1	2

TABLE XI.—*Continued.*

[illegible]

TABLE XII.—Mortality in reference to Trades.

DISEASES.	AGES AT DEATH.	OCCUPATIONS.																																			
		Grinder.	Cutler.	Tool, Fork and Scissors Forger.	File Cutter, Forger, Hardener.	Engineer, Turner, Fitter, Mechanic.	Bricklayer and Bricklayer's Labourer.	Butcher.	Baker, Confectioner.	Carter, Drayman; Cab, Bus, &c., Driver	Groom and Horsekeeper.	Engine Driver, Tenter, Fireman.	Blacksmith and Blacksmith's Striker.	Furnaceman.	Steel Melter, Moulder, Puddler.	Hammerman.	Roller.	Farmer.	Gardener.	Hawker, Coster.	Joiner, &c.	Labourer.	Mason and Builder.	Coal Miner.	Hotel Keeper, Publican, &c.	Boot and Shoe Maker.	Tailor.	Painter, Plumber, &c.	Clerk.	Merchant and Manufacturer.	Silversmith, Chaser, Engraver, &c.	Horn and Bone Cutter, Grinder, &c.	Horn Presser.	Printer, Compositor.	General Shopkeeper.		
Diseases of the Nervous System.	Under 25	1	1	1
	25 & " 35	..	2	..	1	3	1	1	1	6	1	..	1	1
	35 & " 45	..	3	..	3	1	2	1	..	1	1	..	1	2	..	1	..	1	..	1	1	3	6	..	1	1	..	1	..
	45 & " 55	1	4	..	2	3	1	1	1	2	1	..	1	..	1	..	1	..	1	5	4	2	..	2	4	1	1	1	3
	55 & " 65	..	9	7	2	..	1	..	..	1	..	1	2	..	..	..	..	1	3	..	2	2	6	1	..	2	2	..	4	2	3	2	1	..	2	..
	65 & upwards.	..	9	7	2	..	1	..	..	1	..	1	2	..	..	..	..	1	3	..	2	2	6	1	..	2	2	..	4	2	3	2	1	..	2	..
Total		..	218	7	8	4	4	1	..	7	2	3	4	3	2	..	3	4	..	4	3	22	5	..	2	4	1	8	10	4	4	3	1	2	8	..	
Diseases of the Respiratory System other than Phthisis.	Under 25	1	3	3	1	1	1	1	..	1	..	1	..	1	1	4	1	1	1	1
	25 & " 35	6	..	2	2	1	2	1	..	1	2	1	2	..	..	..	..	1	1	1	1	6	1	1	1	2	1	1	1	..	1	2	..	1	..	1
	35 & " 45	8	5	1	1	2	..	1	..	2	3	1	1	..	..	1	1	..	..	1	3	13	1	1	2	..	2	1	4	3	..	1	2	..	1	..
	45 & " 55	11	6	5	4	5	2	2	..	1	1	3	4	2	6	1	..	1	2	2	20	2	1	1	1	..	2	1	1	1	1	2	1	1	1	1	
	55 & " 65	5	7	7	4	3	5	1	1	3	..	2	7	2	2	2	2	2	1	1	4	25	6	4	1	..	1	2	3	2	3	1	1	..	1	..	
	65 & upwards.	3	8	17	5	4	1	2	..	2	..	3	1	..	3	1	1	4	..	5	7	19	6	2	3	3	2	5	1	8	2	3	..	2	3	..	
Total		..	34	29	35	17	16	10	7	2	9	6	10	16	4	12	5	5	6	3	9	18	87	17	9	8	5	6	13	9	12	10	5	2	3	9	..
Phthisis.	Under 25	1	5	1	2	1	2	..	..	..	..	..	..	1	1	..	..	..	..	..	6	..	1	1	..	..	..	..	..	..	2	..	..	..	..	3
	25 & " 35	6	6	5	1	1	1	..	4	2	1	..	1	..	..	1	2	3	..	..	10	2	2	..	1	..	1	5	1	4	2	..	..	1	..	
	35 & " 45	9	6	4	5	2	1	..	1	..	..	3	2	1	2	3	..	..	..	..	16	3	..	1	..	1	5	..	3	1	..	..	..	..	1	..
	45 & " 55	12	6	8	6	..	3	1	..	2	..	2	1	1	3	1	3	..	2	..	10	5	1	3	3	1	..	3	1	6	..	..	1	..	..
	55 & " 65	6	4	2	2	1	1	..	..	..	..	2	..	..	..	..	..	..	..	..	1	4	1	1	2	..	..	2	..	..	..	1	..	..	2	..
	65 & upwards.	2	3	..	3	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	2	..	..	1	..	..	..	..	..	1	..	..	..	1	..
Total		..	36	30	20	19	5	8	1	4	5	2	2	7	3	6	4	6	1	..	2	4	48	11	5	8	4	1	2	13	4	15	4	..	1	8	..
Diseases of the Urinary System.	Under 25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	25 & " 35	..	..	..	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1
	35 & " 45	1	1	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	1	..	..	1	..	..	1	..	..	..	..
	45 & " 55	..	1	..	5	..	1	2	..	..	2	..	..	..	..	..	3	..	..	..	1	3	..	1	..	2	..	1	3	..	..	..	..	..	1	..
	55 & " 65	2	2	1	2	1	1	..	..	..	1	..	1	..	1	..	..	..	..	..	5	1	..	..	..	1	2	2	..	1	2	2	..	..	..	..
	65 & upwards.	..	3	1	1	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	1	2	2	..	1	..	1	..	..	..	2
Total		..	3	7	4	11	1	3	2	..	3	3	..	1	..	..	3	..	1	2	13	1	1	..	3	1	6	7	2	1	1	..	..	..	2	..
Diseases of the Circulatory System.	Under 25	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..
	25 & " 35	1	1	..	..	..	1	..	3	1	..	..	..	..	1	..	..	..	..	2	..	5	..	..	..	..	..	..	3	..	1	..	..	..	1	..
	35 & " 45	2	2	1	2	3	1	..	1	1	1	..	2	1	1	1	..	..	1	1	7	..	..	..	..	..	..	..	1	..	1	..	..	..	1	..
	45 & " 55	2	4	6	3	..	1	1	..	..	1	2	1	5	1	1	..	..	..	1	5	7	1	..	..	..	2	1	1	1	1	1	1	1	1	3
	55 & " 65	1	4	4	6	..	..	..	..	..	..	..	..	1	..	1	..	1	..	3	5	2	4	2	1	..	4	1	1	1	..	..	..	..	3	
	65 & upwards.	2	3	4	3	3	2	..	..	1	1	..	1	..	1	..	2	1	..	5	6	2	2	1	1	..	2	1	6	3	..	..	..	1	..	
Total		..	8	14	16	14	6	2	4	1	4	2	3	3	3	9	2	4	1	3	10	30	12	7	3	2	..	2	13	8	6	2	..	1	9	..	
Diseases of the Digestive System, exclusive of Liver.	Under 25	..	..	2	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
	25 & " 35	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..
	35 & " 45	..	..	1	..	..	..	..	..	1	..	..	1	..	1	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..
	45 & " 55	2	..	..	..	..	1	..	..	..	..	..	1	..	1	..	1	..	..	..	1	..	1	1	..	1	..	1	1	..	1	1	..	..	..	..
	55 & " 65	..	1	..	..	..	..	1	..	1</																										

THE BLACK SMOKE NUISANCE.

On April 14th, 1897, a Special Report was issued on this subject, and it is much to be desired that several of the recommendations and suggestions contained therein should be acted on.

It is also desirable that Sub-Section 7 of Section 91 of the Public Health Act, 1875, should be amended at as early a date as possible. The Sub-Section is as follows:—"Any chimney (not being the chimney of a private dwelling house) sending forth *black* smoke in such a quantity as to be a nuisance" &c.

The wording of this clause has always been most carefully followed by the Smoke Inspectors, with a result that over and over again the Corporation have been charged with not taking sufficient care in the prevention of the black smoke nuisance, because they did not take action in cases where dense volumes of what actually was brown or greyish brown smoke were being emitted.

The law as it at present exists requires that the smoke shall be black, and also that this shall be in such quantity as to be a nuisance.

During 1897 a very important appeal case was lost by the useful Sheffield Smoke Abatement Association because it was ascertained that smoke had been 'booked' as 'black' which was not actually so.

There can be no question but that much of the most objectionable smoke—smoke which constitutes a preventable nuisance—is not black. In this respect the wording of the Act requires amendment. Under certain conditions it is possible to so regulate the combustion that the smoke is never black.

It will be seen from the accompanying chart and figures that during the past three years about 5,000 observations, each of one hour's duration, have been made annually. It will also be observed that during these years the average amount of black smoke emitted in each year was 2·2 minutes per hour. These observations include those on all boiler chimneys and certain chimneys in connection with furnaces, such as brewing pans, &c. Some of the boiler chimneys have one boiler attached, while others have six or more attached.

The present time limits in use are as follows:—

For 1 boiler, 2 minutes of black smoke per hour is thought not excessive.

„	2	„	3	„	„	„
„	3	„	4	„	„	„
„	4 or more boilers,	6	„	„	„	„

The question naturally suggests itself as to whether these time limits may not still further be reduced, as it is practically possible to keep the average emissions to the time limit for one boiler chimneys.

In the Special Report above referred to a scale is suggested which is less stringent than that advocated by Mr. Fletcher. It is as follows:—

1 boiler,	1 minute's black smoke per hour.
2 boilers,	2 minutes' „
3 „ 3	„ „
4 or more boilers,	4 „ „

If this more stringent regulation were adopted, due allowance would have to be made for lighting and re-kindling of fires in all cases. Allowance would also have to be made in the case of many of the Sheffield works where the steam power required varies very much from hour to hour.

Another subject which might with very great advantage be taken in hand is the emission of excessive amounts of black smoke from metallurgical furnaces. This could not be undertaken without the appointment of an additional inspector, as the amount of time involved in dealing with each set of furnaces would be considerable.

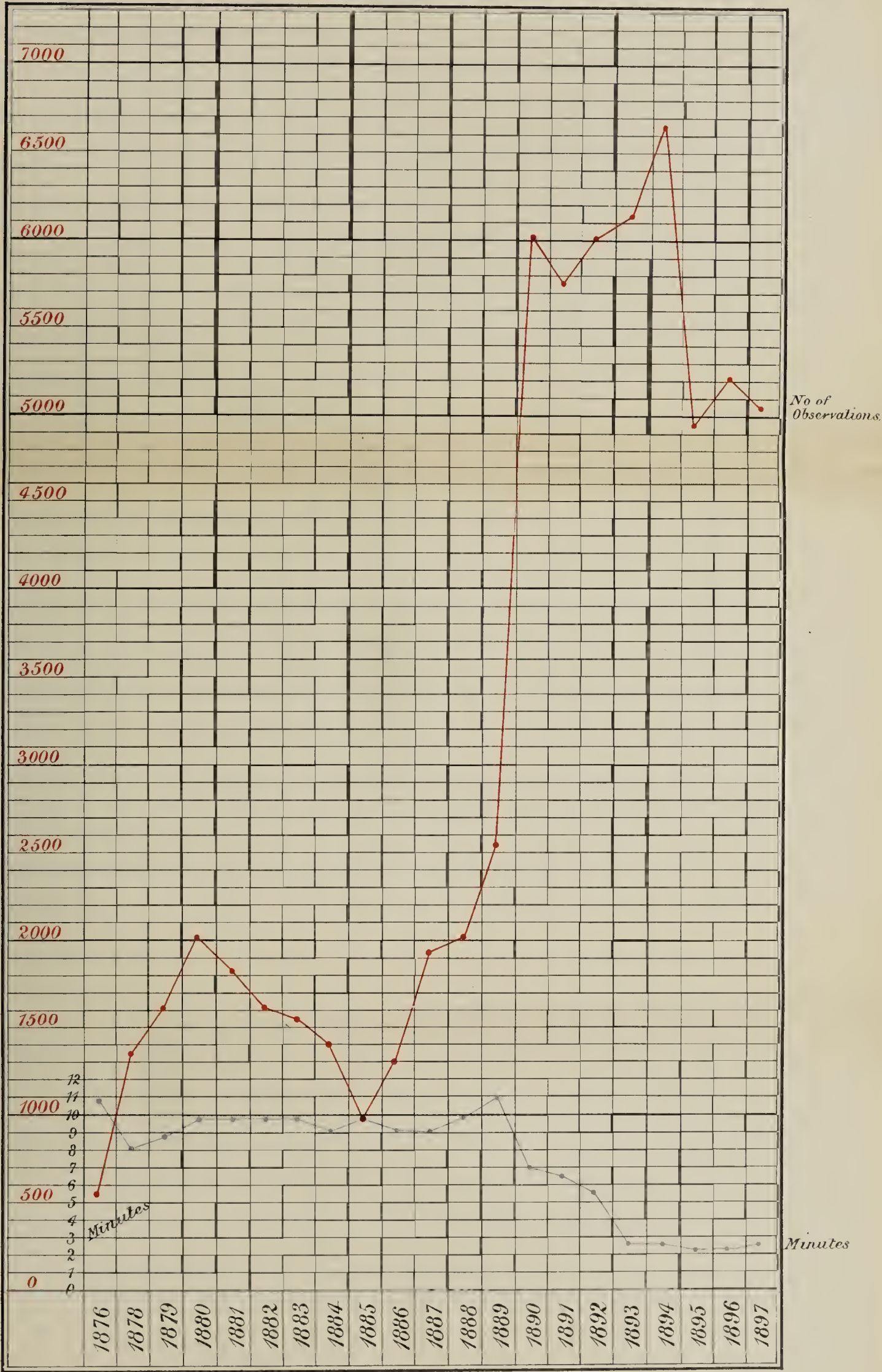
At the present time the men who look after this class of furnaces are for the most part totally untrained firemen, and there is no responsibility attached to their work as regards the prevention of excessive emission of black smoke.

In several instances recently it has been most conclusively proved that two or three times the amount of black smoke was turned out that ought to have been.

CHART SHOWING

(a) Yearly number of observations, each of one hour's duration.

(b) Average number of minutes of Black Smoke.



The general principles on which this class of chimneys should be dealt with are as follows :—

1st. Information should be obtained as to the exact nature of the processes carried on.
The man in charge should then be carefully watched while firing, and instructions given as to the best method to adopt.

2nd. When the fireman is using reasonable precautions to prevent the emission of black smoke, observations of the chimney should be made extending over a considerable time. In this way a standard would be obtained as to what can reasonably be expected.

Any excessive emissions should be dealt with.

Much nuisance is caused in certain districts by the smoke from chimneys in connection with metallurgical furnaces being so short that they allow of the smoke blowing into the adjacent houses instead of over them. It is advisable that powers should be obtained for Sheffield similar to those possessed by other towns, enabling the Corporation to regulate the height of such chimneys. Such powers may be in excess of the general law, but the local conditions are so exceptional that efforts should be made in this direction.

TABLE XVII.—Details of Work done by Smoke Inspectors during 1897, and during the previous ten years.

	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897
No. of Observations upon Chimneys, of each one hour.....	1901	2007	2555	6013	5751	6000	6157	6686	4935	5201	5038
Average No. of Minutes of Black Smoke per hour....	9·7	10·0	11·0	7·0	6·3	5·2	2·8	2·8	2·1	2·2	2·25
No. of Notices served	53	48	55	47	14	97	81	125	72	100	89
No. of Complaints received.....	3	9	43	75	40	32	23	23	22	22	27
No. of New Boilers put down.....	2	9	14	31	7	15	31	19	9	30	32
No. of Chimneys erected	2	4	7	8	6	15	10	17	5	18	16
No. of Chimneys raised	7	8	11	6	8	15	9	5	6	9	15
Furnaces re-erected or re-arranged	65	67	84	77	13	7	6	24	41	41	44
Appliances of Improvements introduced	...	...	...	...	...	117	34	38	52	81	49

Table XVIII. is a statement in regard to the chimneys, concerning which notices were served during the year by the inspectors. The number of boilers and furnaces discharging into the chimney in each case is shown, together with the number of minutes of black smoke for which the notice was served, and the apparatus in use at the time of the serving of the notice, together with any alterations made with a view to rectifying the nuisance subsequently.

TABLE XVIII.—SMOKE ABATEMENT.

Number of Chimney.	Boilers, Furnaces, &c., attached.	Number of minutes for which Notice was served	Smoke-consuming Apparatus (if any) at the time Notice was served.	Remarks.
S.S. 26	1 Boiler and 3 Furnaces ...	12	Forced Draught	Intend trying forced draught on the furnaces
80	1 Boiler	6	Grids on the Doors	Plenty of boiler room
119	1 „	4	„ „	Burn coke in future
L.S.A. 105	1 Boiler and 2 Coppers ...	10	Forced Draught	Forced draught on coppers also
S.I. 45	1 Furnace	3	„	Raised the chimney, and burning coke
158	2 Furnaces	12	Hollow Bridges	Intend having a bigger boiler
S.A. 137	1 Furnace	3	Grids on the Doors	
H.A. 81	10 Furnaces	20	„ „	Testing a smoke preventer
42	2 „	22	Forced Draught	
32	1 Boiler and 1 Copper ...	6	Grid on the Door	
152	1 Boiler	9	Door in the Dead Plate	Plenty of boiler room
L.R. 15	3 Boilers and 2 Furnaces...	13	Grids on the Doors	Going to put grids on the furnaces
S.I. 27	1 Boiler	10	„ „	Temporary boiler till new chimney built

TABLE XVIII.—Continued.

Number of Chimney.	Boilers, Furnaces, &c., attached.	Number of minutes for which Notice was served.	Smoke-consuming Apparatus (if any) at the time Notice was served.	Remarks.
R.D. 60	5 Boilers and 1 Furnace ...	13	Mechanical Stokers	Intend trying another smoke apparatus
S.I. 47	1 Boiler	8	Grid on the Door	Burning coke now
S.I.A. 103	1 „	3	„ „	For temporary use only
18	1 „	10	Forced Draught	The engine out of repair
S.S. 145	1 „	13	Few Holes in the Door	Will burn coke in the future
85	1 „	7	Hollow Bridge	Plenty of boiler room
70	1 „	6	„ „	„ „
58	1 „	7	Hole in the Door	Will burn coke in the future
S.S. 51	3 Boilers and 1 Furnace ...	15	Hollow Bridges	Experimenting with apparatus
23	2 Boilers	12	Grids on the Doors	Taken off forced draught
165	1 Boiler	5	Forced Draught	Plenty of boiler room
25	2 Boilers	7	Grids on the Doors	„ „
S.C. 27	7 Boilers and 2 Furnaces...	11	Door in the Dead Plate	Short of boiler room
9	3 „ 6 „ ...	13	Hollow Bridges	Going to build new chimney
S.I. 148	1 Boiler	5	Grid on the Door	Going to attach an apparatus
135	1 „	5	„ „	„ „
L.H. 82	4 Boilers	10	Forced Draught	Thinking of taking off the forced draught
132	1 Boiler	4	Grids on the Door	Going to adopt apparatus
53	1 „	5	„ „	Plenty of boiler room
S.S.C. 145	1 Copper	17	Ordinary Bars	Would fire lighter in future
158	2 Boilers	4	Hollow Bridges	Going to put down a new boiler
87	1 Boiler	10	Grid on the Door	Fair amount of boiler room
L.H.A. 30	1 „ and 9 Furnaces ...	12	Forced Draught	Furnaces are fired heavily
S.B. 137	3 Boilers and 2 Furnaces...	9	Double Doors	Fair amount of boiler room
S.S. 125	1 Boiler	8	Grids on the Doors	Plenty of boiler room
R.A. 50	2 Boilers	14	Oates' Apparatus	Was out of repair
V.C. 62	6 „	16	Forced Draught and Grids	Fair amount of boiler room
S.S. 26	1 Boiler and 2 Furnaces ...	8	„ „ „	The chimney rather low
H.B. 81	9 Boilers	19	Mechanical Stokers	Fuel very fair
H.A. 81	10 „	9	Grids on the Doors	Going to put on a smoke preventer
116	1 Boiler and 1 Furnace ...	7	Patent Bars	Was a fresh man in charge
L.S. 51	2 Boilers and 1 Furnace ...	8	Forced Draught	Short of boiler room
161	1 Boiler	6	„ „	Have raised the chimney
52	2 Boilers	4½	Forced Draught	Plenty of boiler room
159	1 Boiler	10	Grid on the Door	„ „
B.S. 39	1 Boiler and 1 Furnace ...	9	Forced Draught	„ „
104	1 Boiler	4	Air Tubes under the Bars	„ „
89	1 „	5	Grid on the Door	Have raised the chimney
45	1 Furnace	4	„ „	„ „
R.A. 99	2 Boilers	9	Forced Draught	Plenty of boiler room
R.B. 99	4 Boilers and 2 Furnaces...	9	„ „	„ „
N.S.A. 77	2 „ „ 6 „ ...	12	Hawksley, Wilds' Bars	Have put on mechanical stokers
O.S.B. 77	3 „ „ 8 „ ...	16	Grids on the Doors	Thinking of putting in hollow bridges
C. 161	1 Boiler	5	Mechanical Stoker	„ „
B. 76	3 Boilers	14	Perforated Bridges	Larger boilers put down
47	4 „ and 3 Htg. Fur'ces	12	Air Tubes to Bridges	Hollow „ bridge and perforated door
D. 21	1 Boiler	5	„ „	Mellor's patent bar
89	1 „	4	„ „	„ „
H. 110	1 „	6	„ „	„ „
55	4 Boilers and 6 Htg. Fur'ces	7	„ „	Furnaces conducted into independent stacks
C. 56	1 Boiler, Portable... ..	4	„ „	Coke substituted for slack
D. 19	1 „	5	„ „	„ „
B. 49	2 Boilers	6	„ „	„ „
B. 114	1 Boiler	5	„ „	„ „
191	1 „ Portable	7½	„ „	Coke substituted for slack
171	1 „	3	„ „	New multitubular boiler, perforated doors

TABLE XVIII.—Continued.

Number of Chimney.	Boilers, Furnaces, &c., attached.	Number of minutes for which Notice was served.	Smoke-consuming Apparatus (if any) at the time Notice was served.	Remarks.
124	2 Boilers	12		
D. 176	1 Boiler, Vertical	9		Coke now used
D. 112	1 „	6		
78	1 „	10½		New larger boiler put down
A. 128	1 „	7		
74	1 „	4½		New larger boiler put down
A. 171	1 „	14½		„ „ „ and steam jet
A. 127	1 „	9	Davy's Patent	
B. 148	1 „	6	Own Bridge arrangement	Improved upon
C. 29	1 „ 1 Pan	12½		
D. 22	1 „	7½		
112	1 „	5	Meldrum's Patent	New chimney
B. 27	1 „ Vertical	5		
147	1 „	5		
B. 41	1 „	4		
B. 192	1 „	6		
B. 130	1 „	6½		
47	3 Boilers and 3 Htg. Fur'ces	10	Air Tubes to Bridges	3 new and larger boilers put down
75	2 „	6½		
C. 147	1 Boiler and 2 Htg. Fur'ces	8		

SWINE FEVER.

J. Abson, Esq., F.R.C.V.S., the Inspector under the Contagious Diseases (Animals) Act, reports that “during the year 1897 100 cases of suspected Swine Fever were reported to the police. Of this number reported only one outbreak of Swine Fever actually occurred.”

ANTHRAX.

“Four outbreaks of Anthrax occurred during 1897—in all cases the subjects being pigs. In each outbreak prompt measures were at once taken for its suppression, and were successful.”

RABIES.

“No case of Rabies occurred within the City boundaries in 1897, but many dogs were killed as being suspected. In every instance where slaughter or death had taken place I made a most careful *post-mortem* examination on the animal, and in all cases found no evidence of this dread disease. I may add that so far as possible a full inquiry into the history of the animal was made in every case with a view of aiding the diagnosis.”

There was no outbreak of Glanders, Pleuro-pneumonia, or Foot and Mouth Disease during 1897.

OFFENSIVE TRADES REGISTERED.

Fellmonger	...	...	...	...	...	...	...	1
Gut-cleaners	...	...	...	...	...	...	...	3
Tripe-boilers	...	...	...	...	...	...	...	24
Hide and Skin Markets...	...	...	...	...	...	...	...	2
Total								30

These have been regularly inspected during the year by the Meat Inspector.

MEAT INSPECTION.

TABLE XIX.—Showing the amount of Meat, &c., condemned as unfit for human food during the year 1897.

MEAT, ETC.		FISH.		FRUIT AND VEGETABLES.	
59 ³ / ₄	Carcases of Beef	20	Boxes, Barrels, &c., of Cod-fish		
33	Pieces „	3	„ „ Coal fish		
5	Beasts' livers	1	„ „ Cat fish		
1	„ lungs	4	„ „ Conger-eels		
4	„ offals	3	„ „ Haddocks		
22	„ tripes	11	„ „ Halibut		
90	„ heels	24	„ „ Hake		
1	„ viscera	39	„ „ Herrings		
155 ¹ / ₂	Carcases of Mutton	10	„ „ Mixed		
4	Pieces „ „	38	„ „ Mackerel	8 ¹ / ₂	Barrels of Apples
2	Carcases „ Goat	1	„ „ Mullet	68	Bags of Red Cabbage
13	„ „ Pork	31	„ „ Sprag		
4	Pigs' plucks	3	„ „ Sprats		
68	Carcases of Veal	182	„ „ Kippers		
10	Pieces „	25	„ „ Ling		
26	Calves' plucks	11	„ „ Cockles		
46	Carcases of Lamb'	89	„ „ Mussels		
1	Han	1	„ „ Oysters		
49	Couples of Ducks	10	„ „ Shrimps		
40	Turkeys	1	„ „ Periwinkles		
8	Brace of Partridges				
308	Couples of Rabbits				
	Weight, 22 ton, 11 cwt., 1 qr., 7 lbs.		Weight, 26 ton, 6 cwt, 0 qrs., 2 lbs.		Weight, 3 tons, 1 cwt., 1 qr., 14 lbs.

Of the carcases condemned as being unfit for human food, 33 were affected with Tuberculosis, viz., 30 Beef, 1 Mutton, 2 Pork.

During the year two Magistrates' orders were required, and one person was summoned and fined £10 and 9s. costs for exposing diseased meat for sale.

TABLE XX.—INSPECTION OF SLAUGHTER-HOUSES, TRIPE-BOILING HOUSES, ETC.

No. of Slaughter-houses in use previous to 1865.	No. of Slaughter-houses on the Register of 1865.	No. of Slaughter-houses on the Register of 1875.	No. of Licenses under the Sheffield Corporation Act.	No. of Horse Slaughter-houses on the Register.	Total No. of Slaughter-houses on the Register.	No. of Visits to Slaughter-houses.	No. of Visits to Shops and Stores.	No. of Tripe-Boiling Premises in use.	No. of Visits to Tripe-Boiling Premises.
49	53	78	8	2	190	2,834	1,370	24	324

During the year 18 changes of occupation of Slaughter-houses have taken place, and three (under the Public Health Act of 1875) have been closed by the occupiers, and in place of one of them a yearly License has been granted to the occupier to slaughter on approved premises.

THE SLAUGHTER HOUSES OF SHEFFIELD.

The objects which all legislation has had in view in regard to slaughter-houses have been :—

1st. That the slaughter of all animals intended for the food of man should take place only in premises recognised for the purpose, so that it might be possible to inspect such places with a view to the detection of diseased meat.

2nd. That carcases of animals so slaughtered should not be exposed to insanitary conditions.

3rd. That such slaughter-houses should be so regulated as to prevent nuisances to those living in the neighbourhood.

It may be stated without fear of contradiction that in Sheffield at the present time efficient inspection of meat is not carried out. There is one Meat Inspector and there are nearly two hundred slaughter-houses scattered over the wide area of the City. Some portion of this Inspector's time is occupied in inspection at the Fish Market and fish shops, and at butchers' shops and other places.

It is impossible for him to make more than one visit a week to a large number of the slaughter-houses. In this respect it is well to remember that the most common diseases for which carcasses are seized and condemned in the slaughter-house are diseases every trace of which can be removed, and thus allow of the meat passing into the market in such a condition that a skilled Meat Inspector could not detect that such came from a diseased animal.

In many cases too the mere removal of the viscera is all that is required to prevent the carcass from being confiscated (which would mean a loss of £12 to £15 to the butcher, and possibly Police Court proceedings).

It will readily be seen what a great temptation there is offered to butchers in out-of-the-way slaughter-houses to hide diseased conditions.

It must be said that most of the Sheffield butchers have shown the most commendable promptitude in assisting the Local Authority by at once reporting cases of diseased meat at their own slaughter-houses, but this is unfortunately not the universal custom, and is one which cannot be depended upon.

In 1877 the Local Government Board issued a Memorandum in regard to the general points which should guide Authorities in the licensing of slaughter-houses. The Memorandum referred to the slaughter-houses in any district—Rural or Urban.

Excepting the group of slaughter-houses at the Shambles, for the present, of the remaining 149, not one conforms with the minimum requirements suggested by the Local Government Board. The great majority offend against the laws of common decency.

The slaughter-houses of Sheffield are at present 188 in number, but of this number 39 are situated at Waingate and Castlefolds, and form a more or less compact group. The remaining 149 are scattered over the wide area of the City, and, bearing in mind that the slaughtering of animals takes place at all hours of the day, from early morning to late at night, it will be evident that even with three or four additional inspectors, it would be impossible to make inspections of every slaughter-house sufficiently often to see that every carcass with its viscera was examined before it is removed.

Of the 149 slaughter-houses, no less than

44	actually adjoin dwelling-houses.
47	are within 20 feet of dwellings.
41	„ 20 to 40 feet of dwellings.
12	„ 40 to 60 „
5	„ 60 to 90 „

There is not one of these 149 slaughter-houses which conforms with the distance suggested by the Local Government Board in their Memorandum.

Of the 149 slaughter-houses, 53 are in yards by themselves—shut off so that the various operations may be decently carried out. The remaining 96 are in common yards with dwelling-houses. In a great many cases these yards form the natural and rightful playground for the children from the houses. It is an every-day occurrence to see little children round the slaughter-house door watching the slaughtering operations. This is one of the conditions which appears to require immediate remedy.

Of the 149 slaughter-houses, 78 are used for killing pigs only, the remaining 71 are used for slaughtering cattle-beasts, sheep, &c., and in these 71 slaughter-houses 189 butchers have a right to slaughter.

At the group of slaughter-houses at the Shambles, 19 butchers have a right to slaughter, so that of the large number of "fresh beef" butchers in Sheffield, only 208 have slaughter-house accommodation. The rest of the butchers are practically dependent on those who have slaughter-houses or on the market for English-killed American beef.

It is true that there exists at the Shambles a small slaughter-house for the use of any butcher who cares to pay the small sum which is usually charged, but the disadvantages and risks are so great that practically no use is made of it ; no self-respecting butcher will use it.

It is, therefore, evident that a large number of butchers are entirely dependent on the Dead Meat Market for their supplies, and, as a result, a trade in American meat has been developed in Sheffield within recent years to the detriment of local agriculturists.

Of the 71 slaughter-houses where cattle-beasts are slaughtered, nine have no lairage accommodation whatever, thus necessitating the slaughter of one animal in the presence of another. Of the 78 pig slaughter-houses, 22 have no separate pig-pens, so that the pigs have to be killed in the presence of others.

In none of the slaughter-houses in Sheffield is there a well-arranged cooling-room. Most of them are so small that when one carcase is finished it is liable to be splashed to some extent during the process of slaughtering and dressing the next animal. A slaughter-house, as such, should be a warm, well-lighted place ; while the cooling-room should be a separate and cool room, so that to obtain the best results it is impossible to combine slaughter-house and cooling-room.

In a well-regulated slaughter-house no blood or other filth should get into any drain. Any liquid should be soaked up with sawdust or other material and removed with the garbage. This is not the case with the small private slaughter-houses in Sheffield, for at the Sewage Works it is evident that large amounts of blood and other liquid filth get into our sewers from the slaughter-houses, causing the sewers to smell badly, and making the treatment of sewage difficult and expensive. The only liquid which ought to pass into the sewers from a slaughter-house is the water used for swilling, after all the blood and filth has been removed.

Of the 149 slaughter-houses no less than 91 have gullies inside of them, so that the meat, during cooling, is exposed to emanations from decomposing filth in these gullies, and also, should there be any defect, to sewer-gas.

In 41 of the 149 slaughter-houses the blood, offal, garbage, and other refuse is removed twice weekly, or oftener ; in 74 it is removed once a week ; and in the remaining 34 slaughter-houses it is removed along with the stable manure or other refuse at longer intervals.

Bearing in mind the proximity of slaughter-houses in Sheffield to dwelling-houses, and how important it is to prevent emanations from decomposing animal matter getting into the air near dwellings, it is obvious that improvement is needed in this direction.

A considerable number of slaughter-houses have insufficient ventilation, while others are so situated that emanations from stables or privies are liable to get into them. In several, privy middens actually adjoin the slaughter-house.

The question of erecting a Public Slaughter-house has been frequently before the Health Committee, and the question of dealing with many of the insanitary slaughter-houses, together with the more important question of enabling efficient inspection of dead meat to be made, has been urged by the Medical Officer of Health on several occasions.

At the present time there appears to be an undoubted necessity for a relatively small scheme of Public Slaughter-houses.

Several instances have recently come before the Health Committee of the hardships which are borne by butchers who have no licensed slaughterhouse at present.

It is becoming increasingly difficult to find a site for a private slaughter-house which could be licensed by the Committee.

Many inquiries have been made at the Health Office in regard to suggested sites, and in nearly every instance it was pointed out by the inquirer that, were a Public Slaughter-house available, it would be gladly taken advantage of.

The number of cattle beasts killed in Sheffield during 1897 was approximately 13,312 ; while the number of carcasses imported from the lairages at Birkenhead and elsewhere was 17,281 (34,562 sides).

If by facilitating the means of slaughter of animals from the surrounding districts it is possible to assist agriculturists in the surrounding districts it would appear that an additional argument existed for Public Slaughter-houses.

It has been contended that by not facilitating the importation of foreign meat, one would keep out of the country a cheap and wholesome food, but in view of the actual market prices of the two kinds of beef there is no reason to fear that any injury would be done.

Since the above was written the Royal Commission on Tuberculosis have issued their report. In this report certain recommendations have been made in regard to Slaughter-houses, and these have been reprinted below.

It is only necessary to add that these recommendations as regards Slaughter-houses represent the opinions of every responsible sanitarian who has had to deal with the question.

Recommendations of Royal Commission on Tuberculosis.

A.—“Slaughter-houses.

1.—We recommend that in all towns and municipal boroughs in England and Wales, and in Ireland, powers be conferred on the Authorities similar to those conferred on Scottish Corporations and Municipalities by the Borough Police (Scotland) Act, 1892, viz :—

(a) When the local authority in any town or urban district in England and Wales and Ireland have provided a public Slaughter-house, power be conferred on them to declare that no other place within the town or borough shall be used for slaughtering, except that a period of three years be allowed to the owners of existing registered private Slaughter-houses to apply their premises to other purposes. The term of three years to date, in those places where adequate public Slaughter-houses already exist, from the public announcement by the local authority that the use of such public Slaughter-houses is obligatory, or, in those places where public Slaughter-houses have not been erected, from the public announcement by the local authority that tenders for their erection have been accepted.

(b) That local authorities be empowered to require all meat slaughtered elsewhere than in a public Slaughter-house, and brought into the district for sale, to be taken to a place or places where such meat may be inspected; and that local authorities be empowered to make a charge to cover the reasonable expenses attendant on such inspection.

(c) That when a public Slaughter-house has been established, inspectors shall be engaged to inspect all animals immediately after slaughter, and stamp the joints of all carcasses passed as sound.

2.—(Deals with London.)

3.—(Deals with rural districts.)

4.—We recommend further that it shall not be lawful to offer for sale the meat of any animal which has not been killed in a duly licensed Slaughter-house.”

TABLE XXII.—HOUSES LET IN LODGINGS.

Number of Houses Registered during the year	...	...	...	43
Number of Lettings in the above houses	...	...	...	106
Number of Persons inhabiting the same :—				
(a) Adult Males	...	...	128	
(b) Adult Females	...	...	108	
(c) Children	...	...	76	
				312
Total number of Inspections made	...	...	...	2,592
Total number of Notices served	...	...	...	68
(a) Overcrowding	...	...	...	34
(b) Whitewashing and Cleansing	...	...	...	35
(c) Minor Structural Defects...	...	...	...	6
(d) Cleansing Courts and Drains	...	...	...	2
(e) Ventilation to be Maintained	...	...	...	1
(f) Animals so kept as be a Nuisance	...	...	...	1
(g) Rooms Improperly Occupied	...	...	...	4

MILK SUPPLY.

Much has been done during the past few years by cowkeepers and milk vendors to improve the condition of the premises in which milk is produced and stored.

As regards cowsheds, much requires yet to be done in the way of securing greater cleanliness both inside the cowhouse and outside in the surrounding yard.

What is desired is that our milk supply shall be from healthy cows, and that every possible care shall be taken to prevent dirt from any source whatever getting into the milk.

Several Continental nations have appreciated the importance of having clean milk supplies, and it is probable that in the near future the public will demand in this country as much care as is bestowed in these foreign countries.

The inspection of milkshops and cowsheds has been regularly carried out, and there can be no doubt whatever but that much good results from it.

The following Table shows the details of the work done during the year :—

TABLE XXIII.—DAIRIES, MILKSHOPS AND COWSHEDS.

NUMBER OF INSPECTIONS—Cowsheds	1,925	7,007
Milkshops	935	
Milk vessels	4,147	
NUMBER OF WRITTEN NOTICES SERVED	19	
ALTERATIONS AND IMPROVEMENTS EFFECTED.—(a) By written notices...	19	
(b) „ verbal „	10	
(a) IN COWSHEDS—New cowsheds built..	3	
New drainage provided	3	
Air-space increased...	4	
Grain troughs removed	2	
Manure pit repaired .	3	
Yards paved and repaired ...	2	
Sanitary troughs provided...	20	
Number of cowsheds closed (1897)	11	
(b) IN DAIRIES & MILKSHOPS—New cupboards provided	7	
Improvements in lighting	3	
Milk vessels dirty	15	
Milkshops closed (1897)	12	
INFECTIOUS DISEASES—(a) On Cowkeepers' premises ...	2	
(b) „, Milksellers' „	4	
CHANGES OF OCCUPATION—(a) Cowsheds	25	
(b) Milkshops	8	
REGISTERED DURING 1897—(a) Cowkeepers	26	
(b) Milksellers	47	
PRESENT NUMBER ON INSPECTOR'S BOOKS—(a) Cowkeepers	263	
(b) Milksellers	244	

In two instances, limited outbreaks of Typhoid Fever were undoubtedly due to the milk supply. In one of these instances a case of Typhoid occurred at the cowkeeper's premises, and in the other instance a contaminated water supply at the farm was the probable cause.

HOUSING OF THE WORKING CLASSES ACT, 1890.

Seven houses were condemned under Part II. of this Act as unfit for human habitation during the year, viz., two in the North Registration District, one in West, and four in Attercliffe.

With one exception the houses have been repaired, the one being closed.

The following is a list of the properties condemned :—

Smithfield, Nos. 1 and 10 in Court 4.

Hawley Lane, No. 1 in Court 1.

Slitting Mill Lane, Nos. 39, 41, 43, and 45.

CANAL BOATS ACTS.

The following is a copy of the report required by the Local Government Board on the work carried out during 1897 in pursuance of the Canal Boats Acts.

Report on work done under Canal Boats Acts during 1897.

TOWN HALL, SHEFFIELD, JANUARY 4TH, 1898.

"To the Chairman and Members of the Health Committee of the Corporation of Sheffield.

Gentlemen,

In compliance with Section III. of the Canal Boats Act of 1884, I have to present to you the Annual Report on the work done under the Canal Boats Acts of 1877 and 1884, within this City, during the year ending December 31st, 1897.

1.—Inspector Frederick Sims has acted as Inspector under the above Acts.

In addition to these duties he has performed certain duties in connection with the attendance at School of Children on Canal Boats, and also has had Supervision of Houses Sub-Let in Lodgings.

His salary for the above was at the rate of £104 per annum.

2.—The number of Boats inspected during the year 1897 was 1,300; of this number 1,266 were found to conform with the Acts of Parliament and Regulations made thereunder.

On 34 of the Boats inspected, one or more infringements were found to exist.

3.—The nature and extent of the infringements were as follows:—

(a)	Registration: Act of 1877, Section I.	0
(b)	Notification of the Change of Master, Regulation IV.	7
(c)	Absence of Certificate: Act of 1877, Section III.	8
(d)	Certificate not Identifying Owner with Boat	3
(e)	Marking: Act, 1877, Section III.; Act, 1884, Section VII.; Regulation VII.	10
(f)	Overcrowding: Regulation VIII.	1
(g)	Partition separating the sexes: Regulation VIII.	1
(h)	Females over 12 improperly occupying: Regulation VIII.	2
(i)	Cleanliness: Regulation XI.	5
(j)	Painting: Regulation IX.	14
(k)	Ventilation: Regulation III.	0
(l)	Dilapidation: Regulation XI.	5
(m)	Removal of Bilge Water: Regulation X.	0
(n)	Without pump: Regulation III. and X.	0
(o)	Refusal of admittance to Inspector: Act, 1877, Section V.	0
(p)	No proper water vessel: Regulation III.	0
(q)	Without requisite double Bulk heads: Regulation III.	0
(r)	Notification of Infectious Disease: Regulation XII.	0

4.—It was not found necessary to take Legal Proceedings in any of the above cases.

5.—It was also not found necessary to take any other steps to secure compliance with the Acts and Regulations.

6.—No cases of Infectious Disease were found on any of the Boats.

7.—No Boats were detained for Cleansing or Disinfection.

8.—The number of Boats on the Register on December 31st, 1897 was ... 105
The Registration of 72 Boats was cancelled during the year.

9.—No new Boats were registered or re-registered during 1897.

The total number of infringements was	... ..	56
Notices not abated December 31st, 1896	... ..	7
Notice served in the year 1897	... ..	32
Verbal cautions	... ..	2
Notices complied with during the year	... ..	37
Verbal cautions complied with	... ..	2
Notices not abated December 31st, 1897	... ..	2
Visits to the Canal during 1897	... ..	162
Number of Women on Boats inspected	... ..	831
Number of Children between 5 and 12 years	... ..	219
Number of Children 5 years and under	... ..	522

I am, Gentlemen, your obedient servant,

JOHN ROBERTSON, Medical Officer of Health."

DISPOSAL OF SOLID REFUSE.

During 1897 the first Destructor in Sheffield was opened at Lumley Street, and before the year ended a site was purchased at Hillsborough for another Destructor, and arrangements were in progress for the erection of additional cells on these sites.

It is greatly to be desired that the whole of the solid refuse from the populous area of the City should be destroyed by fire instead of being deposited at two or three places, as at present, where it creates a dangerous nuisance.

Provision should also be made for the disposal of fish offal, blood, offal refuse from slaughter-houses, and other objectionable easily decomposable filth. At present much refuse of this character is collected by farmers and others and tipped on fields in close proximity to buildings, and is a source of many complaints. It is very important that this should be undertaken by one Central Authority who would make some charge for disposing of this trade refuse. At present it is left in the hands of individual tradesmen who have to make what arrangements they can to get rid of it.

The quantity collected at each place is often so small in amount that it has to be stored for days before it is taken away, and causes nuisance.

CONVERSION OF PRIVIES INTO WATER CLOSETS.

In probably no other large City in this country is the condition of the privies so prejudicial to health as they are in Sheffield. The reasons for this are mainly the following:—

1st. The older part of Sheffield is mainly built as court yards, and these frequently have no through ventilation. Most of the houses are of the back-to-back type, and, therefore, those houses in the court derive their sole air supply from the court. In some central position in the court yard will generally be found a large midden surrounded by privies. One privy was supposed to be sufficient for the common use of three, four, or even five houses.

2nd. Few of the privies in the City are water tight, so that both ground water gets into them and foul liquids percolate out.

3rd. There is, too, a prevalent custom of throwing slops into the midden—a custom which the Health Committee have not as yet been able to put a stop to, notwithstanding the fact that much has been attempted in this direction.

4th. Urinals are attached to a large number of the privies, and these add easily decomposable material to the existing pent-up liquids.

The contents of such privies are by these means kept in a semi-liquid condition—just the condition to promote increased rottenness of the contents. The stench from most of these privies is horrible in the extreme, especially in summer, and but for the fact that long usage has made the inhabitants most tolerant, complaints would be much more frequent than they actually are.

There is another serious objection to these privies, *i.e.*, the fouling of the yard and street which takes place when the contents are being removed.

The only efficient remedy for this state of affairs is to convert these privies into water closets, and this the Health Committee have been doing for the past seven years. The total number of privies dealt with in this way as yet has been relatively small as will be seen by the statistics appended for 1897.

As is well known these insanitary privies are dealt with under Section 21 of the Local Act of 1890, which gives the owner power to require the Corporation to do the work and pay one-third of the cost of the work. This appears, on the face of it, to be a simple arrangement, and one easily carried out. In practice, however, it is found to be tedious and expensive. During 1897 two draughtsmen were employed under the supervision of the Medical Officer of Health in carrying out the requirements in connection with the conversion of privies into water closets. The total number of premises dealt with by them was 80 during 1897. In each instance about as much time had to be spent in measuring, drawing plans, preparing specifications and agreements, getting tenders, and finally supervising the work, as is done by an ordinary architect in dealing with the erection of a workman's cottage. The actual cost to the Corporation for this work amounted to nearly £3 per premises.

This work should be carried on at a far greater rate than is being done at present. There is probably no other work in the City so pressing, from a health standpoint, as that of doing away with these accumulations of festering human excrement from the small court-yards. The present

arrangements are now in good working order, and sufficient experience has been gained to enable the Health Department to proceed much more rapidly. The present law might, with great advantage, be amended so as to give owners a greater inducement to do the work themselves, but until this is effected at least two more draughtsmen should be added to the staff.

Summary of Work done under Section 21 of the Sheffield Corporation Act, 1890, and Section 36, Public Health Act, 1875, during the year ending December 31st, 1897:—

Premises in respect of which Notices were served during 1897	...	132	
Total Number of Houses involved	...	1,262	
PREMISES IN RESPECT OF WHICH THE NOTICES HAVE BEEN COMPLIED WITH IN 1897 :—			
(a) Work done by Corporation (at owner's request)	...	61	premises.
(b) Work done by Corporation (in default)	...	6	„
(c) Work done by owner (with contribution from Corporation)	...	12	„
(d) Work done by owner (without contribution)	...	1	„
Total number of houses involved in the work actually completed during 1897	...	769	
Class of closets adopted...	{ Cottage closets	117	
	{ Trough closets	290	
Total cost of works carried out during 1897	...	£5,059	17 4
Contributions made by Corporation in lieu of one-third cost	...	109	10 0
Corporation third of cost under Section 21 of Act 1890	...	1,052	6 6

FOOD AND DRUGS ACTS.

In the following table will be found a list of the various articles purchased in pursuance of the above Acts during 1897 and the preceding nine years, together with information as to the number of such samples found to be adulterated.

ARTICLES PURCHASED FOR ANALYSIS.	1888.		1889.		1890.		1891.		1892.		1893.		1894.		1895.		1896.		1897.	
	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.	TOTAL SAMPLES.	No. ADULTERATED.
Milk	24	0	50	4	31	1	20	2	114	20	130	17	181	11	200	4	154	15	167	19
Butter	26	9	10	2	10	0	18	0	30	6	33	3	40	3	44	4	23	0	26	1
Cheese ... ..	...	...	...	...	...	...	...	...	...	...	...	...	6	0	...	...	...	...	5	0
Lard	24	2	10	0	...	...	24	0	12	0	...	...	12	0	10	0	...	...	...	...
Bread ... ..	...	...	12	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bread and Butter..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	0
Whisky ... ..	...	...	...	...	...	...	...	...	6	1	...	...	6	2	6	3	10	3	12	0
Gin ... ..	...	...	...	...	...	...	...	...	6	1	...	...	6	1	4	1	10	2	...	...
Brandy ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	0	...	...	...	...
Honey ... ..	...	...	16	0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Flour ... ..	...	...	...	...	...	...	...	...	...	...	9	0	...	...	...	...	...	...	...	...
Tea ... ..	...	...	...	...	6	0	...	...	...	...	7	0	...	...	...	...	...	...	...	...
Coffee ... ..	...	...	...	...	10	0	32	9	15	2	15	7	...	...	10	1	...	...	...	...
Jam ... ..	...	...	...	...	...	...	...	...	...	...	6	0	12	0	...	...	...	...	...	...
Vinegar ... ..	...	...	...	...	...	...	...	...	...	...	12	8	1	1	10	0	...	...	...	...
Pepper ... ..	...	...	8	0	...	...	21	0	16	0	...	...	...	...	...	...	10	0	...	...
Mustard ... ..	...	...	8	0	...	...	10	6	...	...	9	0	...	...	6	0	10	0	...	...
Ground Ginger ...	...	...	...	...	...	...	...	...	...	...	10	3	...	...	...	...	...	...	...	...
Medicines ... ..	...	...	...	...	39	4	...	...	...	...	...	...	6	0	...	...	...	...	...	...
Tinct. of Rhubarb..	...	...	...	...	...	...	...	...	...	...	...	...	3	0	...	...	...	...	...	...
Sal Volatile ... ..	...	...	...	...	19	4	...	...	...	...	...	...	3	1	...	...	...	...	...	...
Cream of Tart. ...	...	...	...	...	15	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Paregoric... ..	...	...	...	...	...	...	...	...	...	...	...	...	3	0	6	0	...	...	...	...
Laudanum ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	0	...	...	...	...
Glycerine... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	0
Lint. of Camphor..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	1
TOTALS... ..	74	11	114	6	130	11	125	17	199	30	231	38	279	19	308	13	217	20	223	21
Percentage of Adulterated Samples.	14.8		5.2		8.4		13.6		15.0		16.4		6.8		4.2		9.2		9.4	
Percentage of Do. for all England.	10.8		11.5		11.2		12.2		12.4		12.9		10.3		9.3		...		...

FOOD AND DRUGS ACTS.

TABLE XXI.—*Details of Proceedings during 1897.*

MILK...	...	...	Number of Samples purchased during 1897 for Analysis by the Public Analyst ...	...	...	...	...	167
			Number of Adulterated Samples	...	...	...	...	19
			Number of Proceedings taken	...	...	...	...	19
			The following fines were imposed:—17s., £3, three at £1, two at £2, two at 30s., five at 10s., one at 5s., and one at 1s., including costs in each case; one case dismissed, one withdrawn, and in one case the vendor left the town before the summons was served.					
BUTTER	...	...	Number of Samples purchased	...	...	...	...	26
			Number of Adulterated Samples	...	...	...	...	1
			Fined £4 and costs.					
CHEESE	...	...	Number of Samples purchased	...	...	...	...	5
			(All were genuine.)					
BREAD AND BUTTER...			Number of Samples purchased	...	...	...	...	1
			(Genuine.)					
WHISKY	...	...	Number of Samples purchased	...	...	...	...	12
			(11 genuine and one inferior.)					
GLYCERINE ....		...	Number of Samples purchased	...	...	...	...	6
			(All were genuine.)					
LINIMENT OF CAMPHOR			Number of Samples purchased	...	...	...	...	6
			Number of Adulterated samples	...	...	...	...	1
			(Fined £1, including costs.)					

It will be noted that nearly 10 per cent. of the samples were found to be adulterated. In the case of the 167 milk samples over 11 per cent. were found to be adulterated.

This high percentage of adulteration in milk samples does not by any means represent the true proportion of samples of milk which have been tampered with.

As is well known the quality of milk varies very much from time to time, with a result that the analyst has to assume that every milk submitted to him was originally of the poorest possible quality of natural milk.

A form of adulteration which is perhaps as pernicious as that of adding water is that of adding to new milk a certain proportion of old separated milk. There are good reasons to believe that this form of adulteration is becoming much more prevalent than was the case a few years ago. Many of the certificates in which the Analyst says the sample was “deficient in natural fat,” or was “of suspiciously poor quality,” were really in regard to milks which had been adulterated with old separated milk.

Seven pints of good average dairy milk, containing 3·5 per cent. of natural fat can be mixed with two pints of old separated milk, containing 0·2 per cent. of fat, and yet pass the Analyst. The profit on such an operation, taking the retail price of new milk at 1s. per gallon, and of separated milk at 3½d. per gallon, would be nearly 20 per cent. This profit would be in addition to that made by retailing milk at a 1s. per gallon.

The most efficient way of dealing with such samples would be to appeal to the cows themselves by having them milked in the presence of an inspector. In many of such instances it would be shown that the difference between the samples would be so great that natural means could not have produced it.

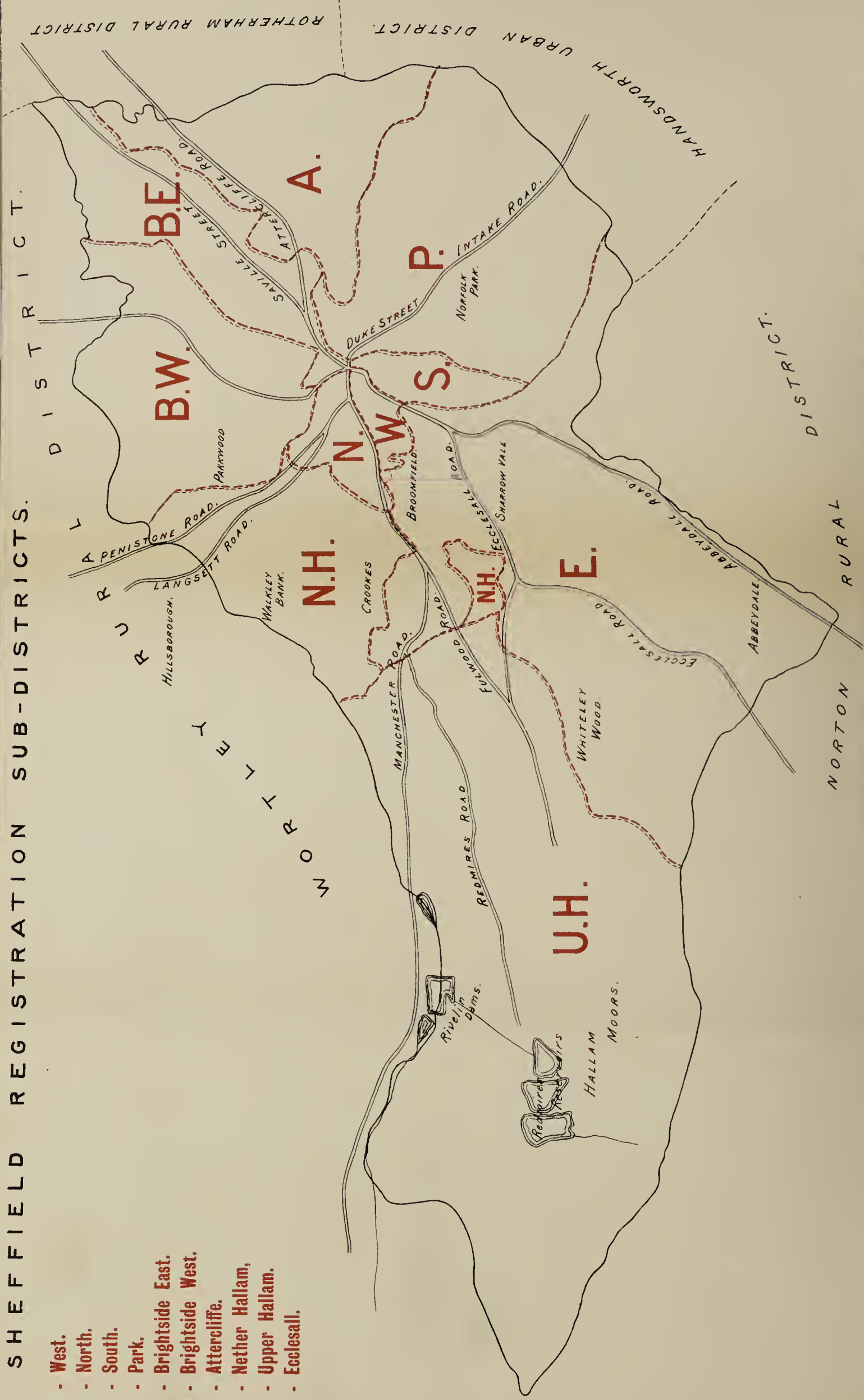
In view of the large percentage of adulterated samples found it would appear to be necessary to increase the number of samples purchased. It will be seen from the following Table that the number of samples purchased in relation to the population is less in Sheffield, Nottingham, and Leeds than in other towns. For instance, one sample was purchased for every 636 persons living in England and Wales in 1896, while in Sheffield in the same year one to every 1,600 was purchased.

SHEFFIELD REGISTRATION SUB-DISTRICTS.

- W. - - West.
- N. - - North.
- S. - - South.
- P. - - Park.
- B.E. - Brightside East.
- B.W. - Brightside West.
- A. - - Attercliffe.
- N.H. - Nether Hallam,
- U.H. - Upper Hallam.
- E. - - Ecclesall.

DISTRICT.

NORTON



FOR AREA, POPULATION, DENSITY & STATISTICS SEE TABLES I, II, III, VI, VII, IX, X.

TOTAL NUMBER OF PERSONS TO EACH SAMPLE PURCHASED UNDER
FOOD AND DRUGS ACTS.

Towns.	1888. Number of Population per Sample.	1889. Number of Population per Sample.	1890. Number of Population per Sample.	1891. Number of Population per Sample.	1892. Number of Population per Sample.	1893. Number of Population per Sample.	1894. Number of Population per Sample.	1895. Number of Population per Sample.	1896. Number of Population per Sample.
Birmingham ...	1 in 594	1 in 521	1 in 498	1 in 530	1 in 499	1 in 486	1 in 436	1 in 439	1 in 440
Bradford ...	1 ,, 1083	1 ,, 1442	1 ,, 1336	1 ,, 1276	1 ,, 1291	1 ,, 1011	1 ,, 903	1 ,, 901	1 ,, 850
Leeds ...	1 ,, 2757	1 ,, 1975	1 ,, 1461	1 ,, 1741	1 ,, 1661	1 ,, 1600	1 ,, 1613	1 ,, 1627	1 ,, 1609
Liverpool...	1 ,, 746	1 ,, 619	1 ,, 641	1 ,, 520	1 ,, 553	1 ,, 526	1 ,, 493	1 ,, 485	1 ,, 521
Manchester ...	1 ,, 235	1 ,, 235	1 ,, 235	1 ,, 312	1 ,, 315	1 ,, 313	1 ,, 321	1 ,, 317	1 ,, 320
London ...	1 ,, 618	1 ,, 617	1 ,, 645	1 ,, 578	1 ,, 577	1 ,, 530	1 ,, 505	1 ,, 430	1 ,, 399
Nottingham ...	1 ,, 3446	1 ,, 2308	1 ,, 2472	1 ,, 2151	1 ,, 1656	1 ,, 2625	1 ,, 1644	1 ,, 1421	1 ,, 1618
SHEFFIELD...	1 ,, 4350	1 ,, 2872	1 ,, 2469	1 ,, 2602	1 ,, 1656	1 ,, 1403	1 ,, 1212	1 ,, 1112	1 ,, 1600
England & Wales	1 ,, 7864	1 ,, 964	1 ,, 5151	1 ,, 999	1 ,, 894	1 ,, 779	1 ,, 734	1 ,, 661	1 ,, 636

TABLE XXV.—DISINFECTING STATION.

SUMMARY FOR THE YEAR ENDING 31ST DECEMBER, 1897.

Number of Articles.	NAME OF ARTICLES.	Number of Articles.	NAME OF ARTICLES.	REMARKS.
1837	Beds	2097	Counterpanes	These Articles were brought in from : 1992 Private Houses and 24 Public Institutions.
206	Bed Hangings	209	Mattresses	
2277	Blankets	282	Carpets	
1244	Bolsters	2084	Articles of Female Clothing	
657	Bolster Cases	1034	Articles of Male Clothing	
3221	Pillows	314	„ Children's „	
1950	Pillow Cases	1191	Various Articles	
1854	Sheets			

INDEX TO REGISTRATION SUB-DISTRICTS.

The following map has been prepared to give some idea of the relative position and size of the Registration Sub-Districts. It is very important that no alterations should be made in the boundaries of these districts so that the health statistics may remain strictly comparable from year to year. The districts were mapped out many years ago, and since then the boundary marks have been effaced by the erection of houses, &c., so that in many instances these boundaries actually pass through houses, across gardens and fields in the most irregular fashion.

The boundaries of these districts do not correspond with the Municipal Ward Boundaries.

As it appears that few in Sheffield have any general idea of the boundaries of the districts used for all public Health Statistics, the following brief outline of them has been prepared :—

W E S T .

From the junction of Bridge Street and Waingate, along Bridge Street, Newhall Street, West Bar, Tenter Street, Broad Lane, and Brook Hill up to its junction with Victoria Street ; thence in an irregular course between Gell Street and Hanover Street ; across Wilkinson Street, in an irregular course to Petre Street and Cavendish Street, and on, in an again irregular course, to Wellington Street at the corner of Eldon Street. From this point in an irregular course to a point in Division Street at its junction with Rockingham Lane. Thence along Division Street, Barker's Pool, Fargate, High Street, Angel Street, Castle Street, and Waingate.

N O R T H .

From Lady's Bridge along the centre of the River Don to Rutland Road Bridge. From this point to the corner of Albert Terrace Road and Penistone Road, thence through the Royal Infirmary Grounds. Along Upperthorpe Road, Portmahon, Watery Lane, Mushroom Lane, Western Bank, Brook Hill, Broad Lane, Tenter Street, West Bar Green, West Bar, Newhall Street, Bridge Street, to Lady's Bridge.

S O U T H .

From Lady's Bridge, along Waingate, Castle Street, Angel Street, High Street, Fargate, Barker's Pool, Cambridge Street, and across Moorhead to Porter Street ; along Porter Street and Bramall Lane to the River Sheaf ; thence along the bed of the Sheaf to its junction with the River Don, and along the Don to Lady's Bridge.

P A R K .

From the point of junction of the Rivers Sheaf and Don, upwards along the Sheaf to Myrtle Road Bridge, thence along Myrtle Road and the footpath in a south-easterly direction to the City boundary. Along the City boundary to a point beyond Crabtree Farm. From this point in an irregular course past Crabtree Farm, Park Farm, Nunnery Farm, to Cricket Inn Road, thence along Cricket Inn Road to a point near St. John's School. From thence, northwards, to Canal Street, near the railway bridge, and from this point, in an easterly direction, along Canal Street to a point on the river opposite the coal depôt of the Nunnery Colliery Company. From this point along the river bed to its junction with the Sheaf.

BRIGHTSIDE (WEST).

From Corporation Street Bridge along the bed of the River Don to the City boundary ; thence along the City boundary to Wincobank Wood ; then, in a southerly direction, through Wincobank Wood to Upwell Street, along Upwell Lane, Grimesthorpe Road, Burngreave Road, and Spital Hill, to Wicker Arches. From this point along the railway line as far as Rock Street ; then along Chatham Street to Corporation Street Bridge.

BRIGHTSIDE (EAST).

Commencing at the City boundary, in a southerly direction, through Wincobank Wood to Upwell Street ; thence along Upwell Lane, Grimesthorpe Road, Burngreave Road, and Spital Hill ; along the Great Central Railway to Rock Street ; down Rock Street and Chatham Street to the River Don. Thence along the river as far as where Brightside Bridge crosses it, and on, in an irregular course, eastward, to the City boundary ; along the City boundary to the point where West Brightside joins.

ATTERCLIFFE.

Commencing at the City boundary near Brightside Village, in a westerly direction to the River Don; along the bed of the river to a point near the Nunnery Colliery Coal Dépôt. From this point across Effingham Road; thence westward, between Effingham Road and the Canal to Canal Street. Then, at right angles, across the Canal, Lunley Street, the Great Central Railway, Bernard Road and Aston Street to Cricket Inn Road. Along Cricket Inn Road as far as Nunnery Farm; then, in a south-easterly direction, by Nunnery Farm, Park Farm, and Crabtree Farm to the City boundary. Thence along the City boundary as far as Brightside (East) boundary.

NETHER HALLAM.

From the River Don, where Rutland Road crosses the river, along the river for about 100 yards, thence in an irregular course across Penistone Road, behind Albert Terrace Road; along Infirmary Road, through the Infirmary Grounds, along Upperthorpe Road to St. Philip's Road. Thence along Portmahon, Watery Lane, Mushroom Lane, the north side of Western Bank and Brook Hill, to Brook Street. Then in an irregular course to Wilkinson Street, across Brunswick Street and Glossop Road to Western Bank. Then along Whitham Road, Crookes Road, by St. Thomas' Church, through Cross Lane in an irregular course to Stephen Hill. From this point in a north-westerly direction to the Rivelin, which forms the City boundary, along the City boundary as far as the River Don; thence along the River Don to the point at Rutland Road.

Nether Hallam also includes a portion of land at Endcliffe which is bounded on the west by Oakbrook, on the south by the Porter Brook as far as Brocco Bank, on the east by Brocco Bank, Clarkehouse Road, and the back of Eastbourne Road, on the north the boundary runs through Westbourne Road, Oakholme Road, past the bottom of Endcliffe Crescent Road, and through Endcliffe Vale Road to Fulwood Road.

UPPER HALLAM.

Commencing at the City boundary near Ringinglowe in a north-easterly direction to the point where Carr Bridge crosses the Porter Brook. Thence along the Porter Brook as far as Spur Gear Wheel, next in a north-westerly direction across Fulwood Road to Cross Pool; then by Stephen Hill to the River Rivelin, which forms the City boundary; along the River Rivelin to the Hollow Meadows Dams, along Rivelin Brook, Oaking Clough, past High Lad Ridge to Stanage, thence in a south-easterly direction by Stanage Edge and Hallam Moors to the point at Ringinglowe where Ecclesall joins.

ECCLESALL.

Commencing at the City boundary near Ringinglowe in a north-easterly direction to the point where Carr Bridge crosses the Porter Brook, along the Porter Brook as far as Brocco Bank, along Brocco Bank and Clarkehouse Road, behind Eastbourne Road as far as Westbourne Road. From this point in a westerly direction by Endcliffe Crescent, and Endcliffe Hall to Fulwood Road, thence in a north-westerly direction past Cross Pool to Clough Fields. From this point in an irregular easterly direction by St. Thomas' Church to Crookes Road, along Crookes Road, Whitham Road, and Western Bank to Glossop Lane; southwards to Peel Terrace, then along the north side of Wilkinson Street and crossing at the junction of Hanover Street to Conway Street, across Gell Street, Cavendish Street, Fitzwilliam Street, Eldon Street, Trafalgar Street, and Rockingham Street to Division Street near its junction with Rockingham Lane. Thence along Division Street, Cambridge Street, Porter Street, Bramall Lane, and Myrtle Road, and on by the footpath past Newfield Green and Buck Wood, to the City boundary, and along the City boundary to where Upper Hallam joins at Ringinglowe.

